U. S. ARMY - BAYLOR UNIVERSITY

A CASE STUDY:
BUSINESS PROCESS REENGINEERING
AT
RAYMOND W. BLISS ARMY COMMUNITY HOSPITAL

GRADUATE MANAGEMENT PROJECT
SUBMITTED IN PARTIAL FULFILLMENT
OF A DEGREE OF
MASTERS IN HEALTH CARE ADMINISTRATION

BY

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This Graduate Management Project was performed to study the application of Business Process Reengineering (BPR) and BPR concepts to the restructuring of Raymond W. Bliss Army Community Hospital. The hospital is restructuring from an inpatient hospital to an ambulatory care center or "super clinic." The reengineering project developed a series of deliverable results during the case study. The reengineering has developed a Combined Ambulatory Nursing Unit (CANU) prototype, which is expected to provide nursing care for urgent care, ambulatory procedure pre- and post- operative care, and medical observation. A reengineering cost impact model was developed to help the facility assess the impact of changes on the cost of delivering health care. This model uses standard expense data pulled from the facility's expense accounting system. Using the model, the projected savings from the project range from between $860,000 to $2,640,000. The case study has shown that Business Process Reengineering concepts were useful in the restructuring of Raymond W. Bliss Army Community Hospital. They provided a good framework for the restructuring and have generated a series of useful deliverable products that are expected to guide the implementation of the conversion of the facility from a hospital to an ambulatory care center.

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Abstract

This Graduate Management Project was performed to study the application of Business Process Reengineering (BPR) and BPR concepts to the restructuring of Raymond W. Bliss Army Community Hospital. The hospital is restructuring from an inpatient hospital to an ambulatory care center or "super clinic." The reengineering project developed a series of deliverable results during the case study. The reengineering has developed a Combined Ambulatory Nursing Unit (CANU) prototype, which is expected to provide nursing care for urgent care, ambulatory procedure pre- and post-operative care, and medical observation. A reengineering cost impact model was developed to help the facility assess the impact of changes on the cost of delivering health care. This model uses standard expense data pulled from the facility's expense accounting system. Using the model, the projected savings from the project range from between $860,000 to $2,640,000. The case study has shown that Business Process Reengineering concepts were useful in the restructuring of Raymond W. Bliss Army Community Hospital. They provided a good framework for the restructuring and have generated a series of useful deliverable products that are expected to guide the implementation of the conversion of the facility from a hospital to an ambulatory care center.

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CHAPTER 1 - INTRODUCTION

The purpose of this Graduate Management Project (GMP) is to apply Business Process Reengineering (BPR) concepts to the restructuring of Raymond W. Bliss Army Community Hospital (RWBACH).

HOSPITAL OVERVIEW

Raymond W. Bliss Army Community Hospital (RWBACH) is a small facility located in a rural county in southeastern Arizona. RWBACH services a 40-mile radius catchment area containing approximately 24,066 eligible beneficiaries (Health Services Region VII 1996). The current service mix includes general medical and surgical (including orthopedics) inpatient services, emergency room care, and numerous ambulatory care services ranging from ambulatory surgery and internal medicine to optometry and physical therapy. RWBACH had 1515 admissions and performed 191,493 clinic visits in fiscal year 1996 (MEPRS 1996).

The current command structure is typical of many Army hospitals, with Deputy Commanders for Clinical Services and Administration reporting directly to the Hospital Commander. Executive leadership is provided by the Quality Council, consisting of the Commander, the Deputy Commanders, the Chief, Department of Nursing, the Hospital Sergeant Major, and the Chief, Performance Improvement.

RWBACH is located in the Desert States TRICARE Region (Region VII). Region VII is currently under contract with the TriWest Health Care Alliance. TriWest began providing health care services on 1 April 1997 in Region VII. The TRICARE contracting concept is to develop a civilian health care network for meeting the needs of military health care beneficiaries that cannot be met with the direct military health care system. TriWest is continuing to set up their provider networks in the Fort Huachuca area. They will be required to provide services not available at RWBACH following the reengineering of the facility. Additionally, RWBACH expects to be able to partner with TriWest to develop mutually beneficial resource sharing agreements in support of the reengineering effort.

CONDITIONS PROMPTING THE STUDY

Budget

RWBACH, as a small hospital within the Military Health Services System (MHSS), has been subject to a great deal of scrutiny. Several initiatives to eliminate inefficient small hospitals have targeted the facility. During fiscal year 1996 (FY 96), both the Office of the Assistant Secretary of Defense for Health Affairs and the Army Medical Command (MEDCOM) performed cost effectiveness studies on small hospitals, including RWBACH. The studies were titled the *Small Hospital Study* and the *Health Care Leveraging Model* (HCLM), respectively (PA&E 1996). Each of these studies during FY 96 found the facility to be cost effective in relation to the cost of purchasing the care in the local civilian market.

In early in fiscal year 1997(FY 97), a final iteration of the HCLM found the inpatient services at RWBACH to be marginally cost ineffective. The change came as the

variables in the model were altered. Specifically, the number of patients who would generate a cost to the government when their inpatient care was provided in the civilian sector was adjusted downward. The number was reduced to reflect removal of MEDICARE eligible patients and patients with third party health insurance. These patients are not eligible for CHAMPUS or are expected not to use CHAMPUS if the military care is not available. Additionally, the HCLM estimated the number of patients admitted to the military treatment facility for "Diagnoses Not Sufficient For Admission (DNSFA)" was higher than initially projected. Patients with DNSFA are not expected to be admitted in the civilian health care sector due to utilization management controls. The result was a reduction of the projected cost to the government, specifically the Department of Defense, for health care provided in the civilian health care sector.

The budget picture for the facility entering into FY 97 was tenuous at best. Initial projections for FY 97 decremented the budget by $2.87 million from $18.009 million, or 15.9% less than FY 96. The staff at RWBACH determined that even with severe restrictions in the procurement of supplies and equipment and freezes in civilian hiring, this budget cut could not be sustained without a significant reduction in services to the beneficiary. In October 1997, a redistribution of funds by MEDCOM adjusted the RWBACH budget to a total decrement of $1.75 million or 10% (total distributed budget was $16.263 million) (MEDCOM 1996). This decrement allows RWBACH to continue with the current mix of services during FY 97, but contingency actions taken this fiscal year are not viewed by the command as sustainable in the coming fiscal year.

Staffing

Threats to the staffing of RWBACH have also been encountered during the past year. In February 1996, an initiative was launched by William Beaumont Army Medical Center (WBAMC), the regional medical center, to remove authorizations from RWBACH and apply them to graduate medical education needs at WBAMC. The result would be a reduction in RWBACH's service capability to that of a troop medical clinic. This initiative was defused at the regional medical command level because of the impact it would have on the provision of health care to the Fort Huachuca area beneficiaries.

A second, and more global threat to military medical staffing as a whole was presented in a summary of Department of Defense Program Budget Decision 041 (PBD 041) by the MEDCOM Program and Budget Division, Deputy Chief of Staff for Resource Management. Their analysis, presented to the Army Medical Department (AMEDD) Major Subordinate Commands, indicated that a reduction in nearly 500 personnel is expected to be harvested by the downsizing of 17 MHSS hospitals over the next two to three years (PA&E 1996).

Status Quo

RWBACH is located within the Army's Southwest Regional Medical Command (SWRMC). During the later part of fiscal year 1996, the SWRMC distributed a memorandum concerning the severe reductions in budget expected for fiscal years 1997 and 1998 (FY 97 and FY 98) (Adams 1996). The SWRMC Commander relayed the need for all facilities in the region to consider reengineering their services to be able to optimize the services they could provide, given the impending budget decrements. While

the facilities were being provided some budget relief for the current fiscal year (as discussed above), the additional funds were in part to be used to "support UM and reengineering efforts (Adams 1996)." The projection is that a similar cut is likely in fiscal year 1998 (FY 98).

On 19 December 1996, the RWBACH was directed to present a briefing to the SWRMC Commander detailing the projected operations of the hospital. The Commander's guidance following the briefing was clearly stated. Maintaining the status quo for RWBACH was not an acceptable alternative. The facility needed to address the future operations of the facility based on the notion that the budget and manpower to maintain the current mix of services is unlikely.

In light of predicted losses in AMEDD manpower in addition to budgetary shortfalls, The Surgeon General of the Army (TSG) released a message to AMEDD leaders discussing the likely changes in the AMEDD in the very near future (Blanck 1996). The message relayed the information that the PBD 041 had been signed and mandated the downsizing of two hospitals similar in size to RWBACH. In the concluding comments, TSG reiterated that the status quo for our system was not an option. "We must educate our line colleagues and ourselves that the medical system of tomorrow will look much different than today, with few traditional hospitals, etc. but this does not mean less care (though less will be done by those of us in uniform) (Blanck 1996)."

STATEMENT OF THE PROBLEM

The two driving factors dictating the future of RWBACH are budget and staffing. The cumulative impact of significant budgetary and staffing reductions is that the current

mix of health care services cannot be maintained. The magnitude of change required mandates a dramatic restructuring of health care delivery. Additionally, the staff must implement decisions to meet these constraints rapidly. The comments of TSG and the SWRMC Commander regarding transforming from the status quo to a health care system of the future, compounded by the pressures for timely decision making, have prompted RWBACH to pursue business process reengineering as the avenue to meet this mandate.

LITERATURE REVIEW

Reengineering Defined

The term reengineering initially gained widespread notoriety following the publishing of Hammer and Champy's Reengineering the Corporation in 1993. This book was written to help managers achieve dramatic improvements in performance by revolutionizing their operational processes (Champy 1995). A survey of large American businesses in 1994 indicated that 69% were undertaking reengineering projects and half of the remainder were considering such projects (Champy 1995).

Hammer and Champy define reengineering as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical measures of performance, such as cost, quality, service, and speed (1993)." The target of reengineering in this definition mirrors the so called "iron triangle" for health care; cost, quality, and access. The Government Accounting Office defines reengineering as "a systematic, disciplined approach for achieving dramatic, measurable performance improvements by fundamentally reexamining, rethinking, and redesigning the processes that an organization uses to carry out its mission (GAO 1995)." Another common term

used synonymously with reengineering is Business Process Reengineering (BPR). This term emphasizes the fact that it is primarily the business processes of the organization that are reengineered.

In addition to industry, government has become significantly involved in reengineering. A great deal of emphasis on reengineering in government is driven by the Government Performance Results Act and the National Performance Review, championed by The Vice President Al Gore (Caudle 1995). These two programs not only put the spot light on government inefficiency, but have illustrated that government organizations can benefit from many of the same type of management tools used in the private sector. In 1995, The General Accounting Office (GAO) published the Business Process Reengineering Assessment Guide to help "assess how well federal organizations are managing the tasks associated with reengineering (GAO 1995)."

The Department of Defense (DOD) has likewise invested heavily in the concept of reengineering. In 1990 the focus on improving business processes was initiated and a group was chartered to help DOD managers reengineer their organizations (Corbin 1996). One of the results of this group was the development of a software package called "TurboBPR" which assists DOD leaders in developing and implementing reengineering projects. In addition to the activities of this group, the Defense Technical Information Center (DTIC) has organized a "virtual college" of reengineering materials and information. The Electronic College of Process Innovation serves as a clearinghouse of process improvement and reengineering related materials and is available via the World Wide Web at http://www.dtic.mil/c3i/bprcd.

Reengineering Success and Failure

Although reengineering has been widely applied, stories of failures are all too prevalent. A review of current literature reveals numerous factors which lead to successful implementation of reengineering programs.

One study of 25 businesses in the United Kingdom revealed six factors as critical determinants of reengineering success (Maull 1995). These factors were the project scope, development and application of metrics, use of information technology, human factors, the architecture of the business processes, and the alignment of the program with the strategy of the organization. One researcher cited the two principle reasons for failure are "functionality risk and political risk: respectively, the organization's inability to understand its uncertain future strategic needs, and its inability to make painful and difficult changes in response to these future strategic needs (Clemons 1995).

Armistead, writing from the experiences of operations management suggests that there are striking similarities between the work of business process reengineering and the functions of operations management. Specifically, he notes similarities between "the use of the process paradigm and the concepts and techniques for designing, managing, and improving operational processes (1995)." With regard to keys to successful process reengineering, Armistead emphasizes the importance of commitment by top management and a cross-disciplinary approach.

The National Academy of Public Administration in Washington, D.C. has developed a detailed reengineering guide titled Reengineering Results: Keys to Success From Government Experience. This document details "six critical success factors" which include:

- Understand Reengineering
- Build a Business and Political Case
- Adopt a Process Management Approach
- Measure and Track Performance Continuously
- Practice Change Management and Provide Central Support
- Manage Reengineering Projects for Results

(Caudle 1995)

These success factors indicate that reengineering success is predicated on a detailed understanding of the reengineering process, attention to the environment surrounding the effort, and careful monitoring of the implementation.

In his 1996 book, Leading the Health Care Revolution: A Reengineering Mandate, Gary D. Kissler lists a number of causes cited for reengineering failure. Among the causes listed are:

- Inadequate Management of Resistance
- Attempting Painless Reengineering
- Lack of Understanding About Reengineering
- Too Narrow or Broad of Scope
- Consensus Based Approval for Reengineering
- Ignoring Infrastructure Realignment (Staffing, budget, resources)

Kissler echoes many of the same themes as the other authors. With a good sense of the important management and leadership factors required in process reengineering, the model for reengineering can now be developed.

Reengineering Modeled

Reengineering was defined above as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical measures of performance, such as cost, quality, service, and speed (Hammer and Champy 1993)." The component parts of this "radical redesign" are rooted in the processes of an organization. Reengineering is based on developing the most efficient and effective processes possible for carrying out the value added work of the organization.

The framework for reengineering follows a simple building block approach. Kissler uses the "Executive Staircase" model shown below in figure 1 to demonstrate this approach (Kissler 1996). The foundation of all reengineering activity is the corporate vision and strategy. These two components determine what business the organization

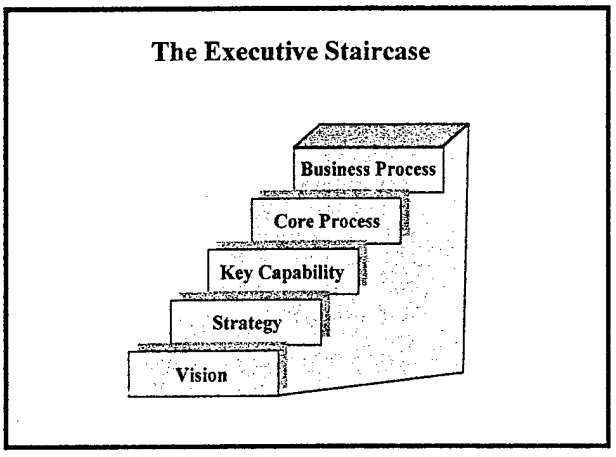

Figure 1. The Executive Staircase. Adapted from Gary D. Kissler, Leading the Health Care Revolution; A reengineering mandate (Chicago: Health Administration Press, 1996), 39.

is in and what it desires to be as it moves into the future. Prior to entering into a reengineering initiative, RWBACH conducted a Strategic Planning Conference. The result of this conference was the publishing of the RWBACH Strategic Plan for FY 1997.

Included in the plan were the command vision and mission statements (RWBACH 1996). The strategic plan and the vision and mission statements will guide the reengineering process at RWBACH.

Based on the strategic plan of the organization, and the strategic plans of the higher headquarters (MHSS and AMEDD), the organization must determine "key capabilities." Key capabilities represent a way of doing business which will position the organization as a leader in the eyes of their customer. Examples of key capabilities in health care include excellence in cost, quality, and access to care (Kissler 1996). Key capabilities result from focusing on and excelling at the performance of the organization's core processes (Kissler 1996).

A core process is defined as "a group of interrelated, measurable, cross-functional business processes that create an output valued by a customer (Kissler 1996)." Caudle further contends that the core processes are the "most vital" for the organization to perform (Caudle 1995). Examples of core processes in health care include emergency services, outpatient care, and preventive medical care (Kissler 1996). "Core processes" are formed by the combination of "business processes."

This leads to the most basic building block in the reengineering model, the "business process." The business process is such a vital link in reengineering, most literature now refers to reengineering as Business Process Reengineering (BPR). A business process is a "collection of related, structural activities, a chain of events, that produces a specific product for a particular customer or customers (Caudle 1995)." The key components are the customer's need and the activities required to fulfill that need. Kissler defines a business process as "a group of measurable linked activities that

transform an input into an output valued by the customer (Kissler 1996)." The GAO considers three types of business processes; mission or external customer facing, support, and management processes (GAO 1995). To insure a clear focus on the external customer, organizations should concentrate on those business processes which are visible to the key external customer and that add value in this customer's view (Kissler 1996).

Patient Focused Care

At nearly the same time that Hammer and Champy were publishing their work, J. Phillip Lathrop introduced the concept of "patient focused care" as a model for reorganizing health care (Lathrop 1993). In his book, Restructuring Health Care, Lathrop outlined a paradigm for assessing and reorganizing the delivery of health care in the hospital setting which revolved around meeting the needs of the patient in a new way. The basic premise was to organize the delivery of care around what the patient valued. Lathrop contended that the delivery of services in hospitals was largely driven by what was convenient for the various departments in the facility. Further, this concept led to the development of a multitude of highly specialized technical workers in these centralized departments. The result was an evolution of processes which required the transportation of patients to numerous areas throughout the facility and the massive duplication of positions not providing direct patient care such as receptionists and clerks (Lathrop 1993). Like the reengineering models discussed above, Lathrop emphasized the evaluation of processes for delivery of care, the business processes of health care delivery. One of the key premises of the patient focused care model is that economies of scale are not productive across most health care settings (Lathrop 1993). While individual departments may benefit from centralization, the effect on service to the patient

is generally negative. In the words of one author, "The patient may receive excellent service at each segment of care, but because they have to visit many different parts of the hospital their experience is not necessarily smooth or timely (Nicholson 1995)." The patient focused care model encourages the "redeployment" of services out to where the patient receives the bulk of their care.

Health Care and Reengineering

Stepping off from the reengineering concepts used by general industry, and incorporating many of the concepts of the patient focused care model, health care leaders have begun to pursue health care reengineering. The need for reengineering in health care has been articulated by many. Health care leaders must now begin to change the focus of planning and decision making to begin with an external focus, continue by examining the future demands for service, and conclude with a look at internal needs (Morell 1995). Edward O Neil writes that a great deal of effort has been placed on reducing the cost of health care by squeezing better prices on health care related commodities, but "70% of provider organizations' costs are related to personnel (1996)." Process reengineering allows leaders to seek efficiencies in this larger portion of the budget (O Neil 1996). Operating under the assumption that cost, quality, and access exist in a direct relationship, many leaders assume they are using the most efficient delivery structure (Mc Connell 1996). The inferred result is a leadership fear that any significant reduction in cost facilitated by a reduction in staff would result in unacceptable reductions in quality and/or access. The consequence of avoiding these significant reductions in cost, available from changes in staffing, has been an incremental approach to improving

organizations. Incremental improvements or changes are a major tenant of continuous quality improvement commonly used in health care organizations.

Project Reporting Model

A familiar model for assessing quality in health care is the Donabedian Structure-Process-Outcome paradigm (Donabedian 1988). This model will be used as a framework in presenting this project. Structure is defined as the setting in which the activity takes place, process is what actually happens, and outcome is the result of the activity (Donabedian 1988). While Donabedian discusses these in the context of health care quality assessment, the framework provides a familiar structure in which to discuss the project.

PURPOSE OF THE PROJECT

The purpose of this project is to study the application of a Business Process Reengineering (BPR) model and BPR concepts to the restructuring of Raymond W. Bliss Army Community Hospital. As discussed above, the project is loosely structured around the Avedis Donabedian quality assessment paradigm. The structural components are represented by the budget, manpower and time constraints under which the facility is working. The process component is the BPR model used to achieve the restructuring of health care. The model is discussed in detail in the Methods and Procedures section below. The outcome component of the project will be reflected in the proposed changes to the organization as reflected in the deliverable products of the reengineering process. The two key outcomes are expected to be prototype changes in the infrastructure (staffing and facility utilization) and proposed changes in the processes for delivering care (core

business processes as discussed below). Kissler defines the dimensions of infrastructure as those concepts and conditions which support the work done and reinforce the behaviors of staff doing the work (1996). The variables are seen in the theoretical model for the project is shown below in figure 2.

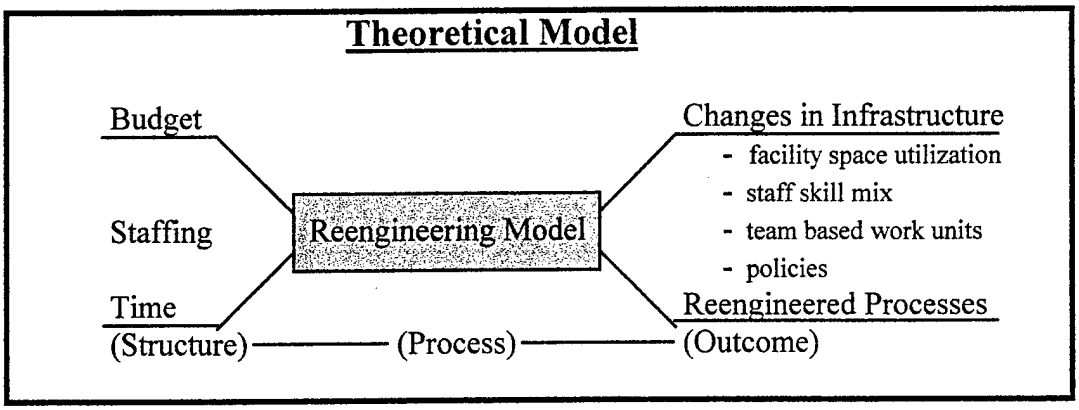

Figure 2. Theoretical Model of Project

CHAPTER 2 - METHODS AND PROCEDURES

STRATEGIC PLANNING

As described above, reengineering is a multiple step process. The foundation of the RWBACH reengineering initiative is the FY 1997 Strategic Plan. This plan was developed by a committee of hospital staff in November of 1996. The strategic planning process began with the hospital Quality Council developing hospital mission and vision statements to guide the planning. The committee then developed a brief analysis of the internal and external environment using a Strengths, Weaknesses, Opportunities, and Threats (SWOT) format. Using the SWOT analysis and the mission and vision statements as guidance, the committee developed the strategic plan. The plan consists of the following seven Key Strategies (RWBACH 1996):

- Readiness
- JCAHO
- Core Services Support
- Managed Care
- Personnel
- Marketing
- The Learning Organization

These Key Strategies reflect the strategies of the commands above the hospital (MHSS and AMEDD) with the addition of the Core Services Support and JCAHO strategies at the local level. The strategic plan will provide the framework for the reengineering of the facility. In particular, the strategy for Core Services Support will be specifically targeted

during reengineering. The core services support strategy parallels the charter for the reengineering process. The strategy reads:

> Identify our core services and their costs.
> Reengineer to support these services.
>
> (RWBACH 1996)

While the other strategies do not have direct ties to the reengineering project, they will play an important shaping role in the reengineering of each core process.

THE REENGINEERING PROJECT

The formal reengineering process began with the appointment of a Reengineering Process Action Team. The charter of the team was to "identify those key product lines essential to the mission and reduce or eliminate nonessential product lines which can generate future savings to meet future decrements (Silberman 1996)."

The elements of the project are now presented in the Structure-Process-Outcome model described above.

Structure

Guidance from the hospital Quality Council provided the elements of structure for the project. The guidance was to consider the following boundaries and goals:

1. **Budget** - expect the decrement to leave $13.5 to $15 million for operations next fiscal year. Given the current year (FY 97) budget of $16.263 million, this represents a cut of $1.26 to $2.8 million or a 7.8% to 17% reduction in funds.

2. **Personnel Authorizations** - reductions in military and civilian staffing must be obtained. Quantities for each are unknown, but are estimated to be approximately 13-30 civilians and 19-34 military positions. The upper bounds represent the total elimination of staffing currently dedicated to inpatient services. The range is designated to allow RWBACH flexibility to realign positions based on reengineering while pledging to the regional command a commitment to move away from the status quo. It is desired that any reductions be accomplished through voluntary separation and attrition.

3. **Time** - reengineering recommendations must be substantially implemented by the beginning of fiscal year 1998 (FY 98) or 1 October 1997. A failure to act quickly leaves the door open for external decision making (higher headquarters) to preempt any hospital initiatives. Additionally, it is thought that savings realized by DOD level initiatives would be directed away from the AMEDD, while savings realized from local or AMEDD implemented initiatives may be retained by the AMEDD.

Process

The process for reengineering reflects the model outlined in the work of Gary D. Kissler, cited above and in the literature review (1996). The model is graphically represented in figure 3 shown below.

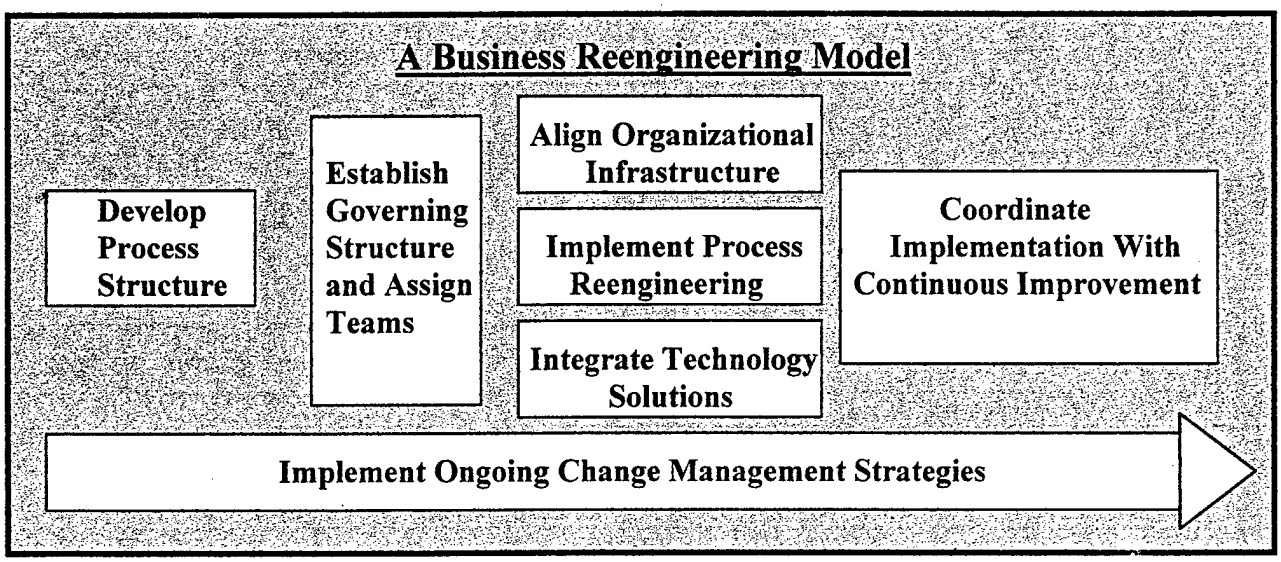

Figure 3. A Business Reengineering Model. Adapted from Gary D. Kissler, Leading the Health Care Revolution; A reengineering mandate (Chicago: Health Administration Press, 1996) , 88.

While the structural limitations of time and budget for this project will likely preclude strict adherence to the entire model, it serves as a good framework for meeting the desired outcome of providing the most effective possible health care to the beneficiary.

Kissler explains ***Development of Process Structure*** as providing the direction and impetus for the effort (1996). Activities include the defining of the strategy for the organization, development of a transformational climate, a general show of leadership support for the activities of reengineering, the establishment of the key capabilities and

core processes of the organization, and allocation of resources to begin the reengineering process.

RWBACH completed this phase of the program in several ways. The development of the new Strategic Plan laid the foundation for movement into the future. The Commander conducted a staff call and issued a series of letters to the hospital staff discussing the hospital's projected budget situation. In addition, the Quality Council has engaged in an ongoing dialogue with the Regional Medical Command regarding the future of the facility. These activities established the transformational environment.

The key capabilities of the facility are set forth in the mission statement of the hospital, "The mission of Raymond W. Bliss Army Community Hospital, Fort Huachuca, Arizona is to provide high quality customer oriented health care in support of the Army mission (RWBACH 1996)." The core processes were established jointly by the Quality Council and the Reengineering Process Action Team (RPAT). The RPAT conducted a brainstorming session to determine the likely core processes of the facility. The processes were then subjected to a multi-vote by the RPAT and the Quality Council. The multi-voting process is a simple voting technique used to reduce a long list of ideas down into a short list of priorities (Williams 1995). The top four processes were selected as the core processes for reengineering. The core processes are as follows:

- Outpatient Primary Care
- Outpatient Referral Care
- Urgent/Emergent Care
- Ambulatory Procedures (Same Day Surgery)

The allocation of resources and establishing of a reengineering governing structure were initiated by the formation of the Reengineering Process Action Team. The

initial meetings of the team were designated for education on the concepts of reengineering and process analysis, further establishing the transformational climate.

In addition to creating the four reengineering teams, the Quality Council formed a "Resource Pool" team. The resource pool was staffed with hospital staff members who had special skills in data collection and analysis or who were subject matter experts in fields that the teams would need to consult with. The purpose of the resource pool is to reduce the effort required by the teams to collect and sift through the vast quantities of data required for a reengineering project. Resource pool members include a number of staff members from Resource Management Division, the Facility Manager, the Safety Manager, and a number of staff members from the Patient Administration Division to identify a few.

The second stage of the model, ***Establish Governing Structure and Assign Teams,*** involved the development of individual Reengineering Teams (RE Team) to pursue the reengineering of each of the core processes. These teams are comprised of members of the original Reengineering Process Action Team and additional members intimately familiar with the individual core processes.

The Quality Council selected the leader of each RE Team, referred to by Kissler as the "process owner (1996)." The process owners selected are individuals with significant experience in the area they are reengineering. These individuals are vested with significant authority to include selection of key people to become members of their team. Additionally, process owners are provided the authority to request information directly from the resource pool. It is critical that they have open access and cooperation

to be able to get information required to assess current processes and future capability to support new processes.

The three steps in the center of the model represent concurrent steps. These steps are:

- Align Organizational Infrastructure
- Implement Process Reengineering
- Integrate Technology Solutions

The heart of these steps is the step ***Implement Process Reengineering.*** This step will comprise the bulk of this project report. The "Reengineering Process Flowchart", displayed at figure 4 below, is a graphic representation of the model followed for this step at RWBACH.

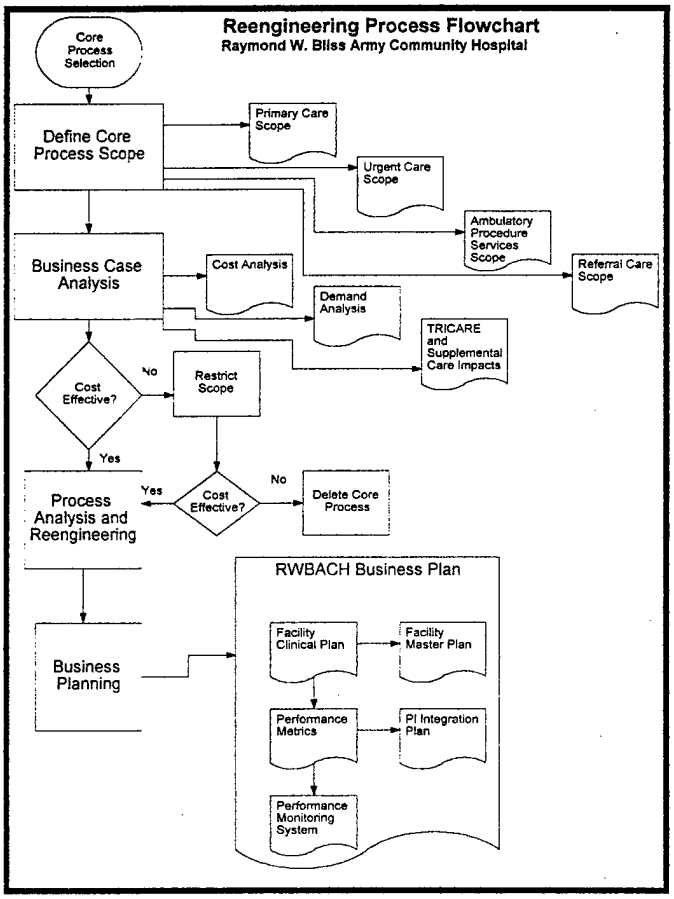

Figure 4. Reengineering Process Flowchart

Kissler outlines five steps to process reengineering (1996). These five steps are as follows:

1. Process Direction
2. Process Diagnosis
3. Process Fast-Path
4. Process Redesign
5. Process Implementation

Process direction involves determining what the end state of the particular core process is likely to be. RE Team members were provided the bulk of this direction from the Quality Council. Much of the direction is dictated by the structural components of budget, time, and personnel authorizations. The initial direction was conveyed to the RE's in team charters, presented at the beginning of the reengineering program. These charters are attached at appendix A. The purpose was to start each team on a solid footing and provide a set of initial working assumptions. Since process direction was accomplished prior to starting this study, it will not be presented in the results chapter of this case study.

Process diagnosis is the lengthy process of assessing the business processes of the organization which make up the core processes. This entails collecting cost and benefit data, verifying customer needs, identifying opportunities for fast-path implementations, and assessing the overall environment for change surrounding the process. Information collected in this step serves as the basis for decisions during the remainder of the reengineering process. Management analysis tools exercised during this stage include workload analyses, cost studies, and demand projections. Additionally, analyses of the political and cultural environments surrounding the process must be considered.

The deliverable products of the process diagnosis for RWBACH were the core process scopes and business cases. The full scopes are attached at appendix B. The full business cases are attached at appendix C. A summary of the content in these documents is provided below.

Scopes. The scopes were prepared to describe the projected core process. The scopes include a general description of the mission and customers or patients served and a discussion of the limitations of the services. Further, they provide an outline of how the services are to be accessed, what type of staff support they will require, and an overview of the standards to which they will be measured.

Business Cases. The business cases were prepared to present a summary of the demand for the services projected in the scope and a basic cost analysis of the projected scope. The cost analysis includes an overview of the projected impact on the TRICARE contract and the expenditure of supplemental care dollars by the facility.

Process fast path is a term Kissler uses to define changes that can be implemented before the conclusion of the entire reengineering program. Fast-path candidates are small investment (time and money) changes which create rapid improvements in very visible processes. Kissler recommends these to show immediate gain and to develop momentum for the overall effort. He also warns that overuse of the fast-path option may derail or construct barriers to future process improvements with greater potential benefits. Fast path can be selectively applied to individual business processes, but should not be used to implement major changes in core processes.

Process redesign involves the redesign of the business processes and the remapping of individual business processes into the new and more efficient core

processes for the future. At this stage, many business processes are often found to be involved in several of the core processes. A mechanism must be developed to prioritize or weight the value of the business process for each of the core processes. The RPAT meetings served as the forum for this to occur. The goal of process redesign is to "weave" together the business processes in the manner which provides the greatest value to the customer. An additional component of the redesigned processes should be a "built-in" method of performance measurement. This will enhance the implementation and continuous improvement of the new processes after final implementation.

Process implementation is the final activity in the process reengineering step. In contrast to fast-path activities, this entails the full implementation of all reengineered core processes. Kissler notes two keys to this implementation. The reengineered processes should be implemented with their performance measurement systems in place and the performance measurement should be linked to a continuous improvement type cycle.

The ***Alignment of Organizational Infrastructure*** involves altering the existing support structures such as, staffing mix, staffing skills, organizational policies, and facility space utilization, to meet the needs of reengineered work processes (Kissler 1996). This was not fully executable within the reporting timeframe of this project, but there are indications that this realignment is beginning to take place in the area of staffing and facility space utilization. These indications are discussed in the results chapter of this report.

The ***Integration of Technological Solutions*** involves the inclusion of automation and communication systems into the reengineered processes of the organization (Kissler 1996). A number of authors have written about the importance of integrating technology into the reengineered organization (Kissler 1996, Champy 1995, and Hammer and Champy 1993). This area is not addressed this project report because technology solutions have not been addressed by the reengineering teams.

Implementing Ongoing Change Management Strategies involves a number of critical activities. Change management is a term used by Kissler to refer to activities designed to "get a large number of people to accept the need for change and modify their behavior (1996)." Practicing change management was listed as one of the "six critical success factors" in the literature review section. That author suggests the development of "an overarching and project-specific internal and external communication and education program" to support the reengineering effort (Caudle 1995). The development and analysis of change management strategies is a complex task. While there were a variety of activities which served as change management functions, ranging from command briefings to information memorandums, the analysis of change management strategies and impacts is beyond the scope of this project.

The final step in the reengineering model, ***Coordinate Implementation with Continuous Improvement,*** was not accomplished within the scope of time this project covers with one exception. The model for measuring the cost impact of the reengineered processes has been developed. This cost impact model will be discussed in Chapter 3, Results.

Outcome

The desired outcome of this project is to assist RWBACH in developing a more efficient and cost effective health care facility. The purpose of this project is to provide a case study of the activities and results of the reengineering program. Significant changes to management infrastructure, clinical/administrative support structure, and clinical staffing have been identified and discussed. The report will document several projected outcomes of the reengineering project.

CHAPTER 3 - RESULTS

The reengineering effort is still underway at RWBACH. Reengineering deliverables as of 1 May 1997 represent the results of this Graduate Management Project. These results are presented in the Structure-Process-Outcome format discussed above. To date, numerous valuable products have been generated for the organization and the work has created a implementable strategy for the organization to pursue. Among the products presented will be programs to improve demand management in the primary care and urgent care clinics, a prototype model for a multi-specialty nursing care unit, and a cost impact model for assessing the affects of reengineering on organizational work centers.

While there were four core processes initially identified in the reengineering program, only three of the processes have been actively pursued. The Outpatient Referral Care team was delayed by the hospital Quality Council. This team is now preparing to begin their tasks.

STRUCTURE

The variables of structure are presented in the Methods and Procedures chapter of this report. They form the underpinning and drive of the reengineering effort. While the guidelines presented have not changed during the project, the development of more definitive guidance and dollar figures has not been forthcoming either.

Budget

The budget element of the reengineering structure was based on funding projections from the beginning of the fiscal year. Since the inception of the project, initial information has been provided on a new capitated budgeting format. The new budgeting format, termed "Enrollment Based Capitation (EBC)," is expected to result in a budgeting process which funds individual facilities based on their TRICARE Prime enrollees. The initial year (FY 98) is expected to provide a similar funding level to FY 97 with adjustments for various special facility circumstances and referral patterns. The implementation guidance is still forthcoming. The result is that historical budget decision making guidance is still being used to make decisions during the project.

Staffing

The staffing element of the structure (reduction target ranges) also remains unchanged. The facility is positioned to hit the target for reducing civilian staffing by eliminating 20 positions. To date 18 positions have been eliminated and 2 additional positions are targeted pending the closure of the inpatient ward. All of these positions have been reduced by attrition and voluntary reassignments (no civilian staff members have been involuntarily terminated). The military staffing reductions are being programmed during the coming fiscal year. These positions are expected to be identified during the ongoing process reengineering phase of the effort. A number of these positions are reflected in the business cases presented in the Process section of this chapter. Final staffing decisions will be presented in the comprehensive business plan at the completion of the reengineering effort.

Time

The time element of the structure has been slow to solidify. The RWBACH Quality Council expected to be rapidly notified by the AMEDD that the downsizing of the hospital was approved. The target date for the closure of the inpatient ward at RWBACH was set for 2 June 1997. This date was set to meet a 120 day suspense requirement for requesting a major change in service. The AMEDD and Department of the Army require 120 days of notice prior to implementing these changes. No final approval has been given as of 1 May 1997.

PROCESS

The process component of this reengineering project was presented in figure 3 (page 20) "A Business Reengineering Model," of the Methods and Procedures chapter. The key results reported here are in the "implement process reengineering" block of the model. The "Reengineering Process Flowchart" from the Methods and Procedure chapter diagrammed the steps in this block. The flowchart is presented in figure 4 (page 23).

Process Diagnosis

The activity of process diagnosis was described earlier as the process of assessing the core processes of the organization. This activity was accomplished by the development of a scope and a business case for each core process. The full scopes for each of the core processes are found at appendix B. The full business cases are found at appendix C.

Scopes

The scopes were written to provide a basic outline of each core process. The teams engaged in a variety of brainstorming activities and developed a series of working scopes from which to begin planning.

Outpatient Primary Care is projected to be executed using the primary care manager (PCM) concept in support of TRICARE Prime enrolled patients. The scope is to include both primary and preventive health care. Additionally, minor surgical procedures such as wart and toenail removals will be performed in the primary care setting. Access will be provided through appointment and triaged same day visits. The primary care clinics will not provide emergency medical care except to stabilize patients for transportation to an appropriate emergency room setting.

Support for primary care should include providers, to include physicians, nurse practitioners, and physician's assistants, as well as a variety of nursing and ancillary support personnel. The ancillary support should include clinical laboratory services and basic pathology services as well as radiologic support. Administrative support should include standard clerical personnel for appointing and processing patients and patient information and medical records keeping personnel. All practice will be governed by the facility's medical staff and will be within the standards of appropriate professional associations and societies.

Urgent Care is projected to be provided in support of primary care. The primary mission is to provide treatment in less than 24 hours for conditions not requiring the extensive follow-up of the PCM. Patients will access the urgent care system through appointment and triage. The triage will select out patients with routine primary care needs and return them to their PCM for care. Services will be provided for both illness

and injury, but will not include routine treatment of emergent patients. As with the primary care scope, emergent patients are expected to be stabilized and shipped to the appropriate emergency room setting. The urgent care scope does include the capability of transporting patients requiring Emergency Medical Technician or Advanced Cardiac Life Support trained attendants.

Support for urgent care should include providers, including physicians, nurse practitioners, and physicians' assistants as well as a variety of nursing and ancillary support personnel. The ancillary support should include clinical laboratory services and basic pathology services as well as radiologic support. Administrative support should include standard clerical personnel for appointing and processing patients and patient information. All practice will be governed by the facility's medical staff and will be within the standards of appropriate professional associations and societies.

Ambulatory Procedure Services will be provided up to but not exceeding cases requiring 23 hours and 59 minutes of post-operative nursing care. Services will include routine ambulatory surgery and endoscopy for general, orthopedic, ENT, urologic, and gynocologic surgery. Surgical cases will be primarily limited by projected recovery time rather than any specific surgical or anesthesia category. No cases will be performed if the patient is expected to require in excess of 24 hours of post-operative nursing care. As with each of the other core processes, all practice will be governed by the facility's medical staff and will be within the standards of appropriate professional associations and societies.

Business Cases

The tasks of the business case are to present a general cost (based on expense data) and demand analysis of the core process, review any projected impacts on TRICARE managed care support contract, and detail any projected shift in supplemental care costs based on the new scope of care.

Primary Care cost and demand were analyzed using MEPRS data extracted from the MEPRS Executive Query System version III (MEQS III) database[1]. Primary care is delivered in three clinics at RWBACH; Community Care Clinics (CCC's) 1, 2, and 3. The expenses for each of these clinics were analyzed for the 12 month period of January 1996 through December of 1996. Total expenses reflect the direct costs, the attributed ancillary costs, and the allocated support costs of each clinic. Demand is estimated based on clinic workload reported in the MEPRS system for the same period of time. The costs and demand of each clinic are summarized in table 1 below.

Table 1. RWBACH Primary Care Cost and Demand Summary

RWBACH Primary Care Cost and Demand Summary					
MEPRS Code	Clinic Name	Visits	Expenses	Cost/Visit	Average Daily Visits
BHAA	Community Care Clinic #3	10388	$ 1,745,314	$ 168	42
BHAB	Community Care Clinic #1	29011	$ 3,250,959	$ 112	116
BHAC	Community Care Clinic #2	18288	$ 2,754,049	$ 151	73
BHAP	Primary Care Partnership (CCC #3)	5498	$ 551,096	$ 100	22
BHAS	Primary Care APN Partnership (CCC #2)	721	$ 50,555	$ 70	3
	Totals:	63906	$ 8,351,973	$ 131	256

[1] MEQS III is a data query and decision support tool which allows expense, obligation, workload, and manpower information from MEPRS to be queried. It allows comparison between facilities and provides both aggregate and detailed data views (MEQS 1996).

The costs and service demand for each of the RWBACH clinics was compared to clinics at several similarly sized Army hospitals. The clinics at Redstone Arsenal, Fort Monmouth, and Fort Leavenworth were selected for this comparison. A summary of this comparison is presented at table 2 shown below.

Table 2. Comparison Clinic Cost and Demand Summary

Comparison Clinic Cost and Demand Analysis					
MEPRS Code	Clinic Name	Visits	Expenses	Cost/Visit	Average Daily Visits
BHAA	Redstone Primary Care Clinic	7847	$1,159,902	$ 148	31
BHAA	Monmouth Primary Care Clinic	4556	$ 703,365	$ 154	18
BHAA	Leavenworth Primary Care Clinic	7994	$ 904,542	$ 113	32
	Totals/Averages	20397	$2,767,809	$ 136	27
BHA	Huachuca Primary Care	63906	$8,351,973	$ 131	NA

The cost per visit was used as the comparison metric. The range for RWBACH clinics was $112 to $168 per visit. The comparison clinics ranged from $113 to $148 per visit. The average cost per visit for all three RWBACH clinics was $131 per visit and the average for all three of the comparison clinics was $136 per visit.

The primary care system at RWBACH is being reengineered with the intent to provide all of the primary care demanded by Prime Enrollees in the RWBACH catchment area. Additional capacity will be appointed on a space available basis to non-Prime enrolled beneficiaries. The extent to which space will be available for the provision of primary care to non-Prime enrolled beneficiaries will depend on the availability of out-year funding and the impact of proposed enrollment based capitation.

Supplemental care costs are primarily incurred when active duty patients must receive care in the civilian health care market. It is the intent of the primary care reengineering effort to not shift additional care into the civilian market.

The Urgent Care business case was designed to estimate what budget savings could be delivered given the change of scope from an emergency room to an urgent care clinic. The FY 96 expenses and workload of the emergency room were collected as the baseline. The workload figures were then adjusted based on the projected change in operating hours and operating status (emergency room vs. urgent care clinic). The percent change in workload was then used to estimate the projected reduction in cost for urgent care in comparison to the historical expenses.

The cost and demand of urgent care were analyzed using the MEPRS Summary Report Step-down Analysis for the Emergency Department for FY 96. Total expenses reflect the direct cost of the ED, the attributed ancillary costs, and the allocated support costs. Demand is estimated based on clinic workload reported in the MEPRS System for the same period of time.

The historical cost and demand figures for the emergency department represent the expenses and workload of a 24 hour per day, 7 day per week, emergency department (ED). The medical staff in the ED is largely provided through a Direct Health Care Provider (DHCP) contract with a group named National Emergency Services (NES). In summary, the historical cost was $ 3,922,265 for 22,921 visits (63 per day), at an average cost of $160 per visit.

The projected cost of Urgent Care Clinic (UCC) operations was presented under two options. The first option represented the projected cost and demand for UCC operations for 16 hours per day. The operations would be in accordance with the scope defined for the straight UCC. The demand for this option is curtailed by the historical percentage of workload seen during the third shift (2300-0700 hours). Approximately 5%

of the historical workload is seen during that time. The 5% reduction was applied to all supply expenses and most ancillary expenses. The personnel and contract (NES) expenses were reduced to the projected staffing pattern for the new unit and the reduced hours of service respectively. The 33% reduction in hours and 5% reduction in workload are projected to result in a core budget savings[2] of $406,680 (32%) and a total savings[3] of $586,995 (16%). In summary, the projected cost is $3,335,270 for 21,775 visits (59 per day), at an average cost of $141 per visit.

The second UCC option represented the combining of staffs with the Ambulatory Procedure Unit (APU), often referred to as the Same Day Surgery Unit (SDSU). Only the UCC portion of this operation was reflected in this analysis. The concept of operations for this unit is to operate the UCC for 12 hours per day, and co-locate the staff of the APU to allow extended post operative observation of patients by the UCC staff. This concept is further detailed in the Outcome portion of this chapter and in the Discussion chapter. In this option the contract (NES) is reduced by approximately 50% and the projected workload drop is 20%. The 50% reduction in hours and 20% reduction in workload are projected to result in a core budget savings of $635,831 (50%) and a total savings of $1,177,916 (32%). In summary, the projected cost is $2,744,349 for 18,250 visits (50 per day), at an average cost of $138 per visit.

The primary impact of the proposed UCC on TRICARE Prime Enrollees is that it should serve as the safety valve for their urgent or acute health care problems. This allows the primary care clinics to focus on the primary care needs of Prime Enrollees.

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[2] Core budget savings are based on the reduction in direct expenses less military personnel expenses only. Ancillary and support costs are not included.

The projected net change in supplemental care costs is difficult to assess. Supplemental care costs are primarily incurred when active duty patients receive care in the civilian health care market. The reduction of services from an emergency room to an urgent care center is likely to result in a small increase in supplemental care expense. However, supplemental care dollars have historically been expended on non-active duty patients who are not disengaged and require some type of diagnostic care (generally CT or MRI) in the civilian market. The reduction of services from an emergency room to an urgent care center is likely to result in an elimination of all of these costs. The net result is difficult to project accurately but the overall shift in supplemental care is likely to be nominal.

The Ambulatory Procedure Services business case was the most complicated of the three business cases. A key assumption made in the development of the Ambulatory Procedure Services business case was that the majority of the cost for Ambulatory Procedure Services is for procedures performed in the operating room as opposed to the clinic or scope room. As such, the analysis of and resulting decision to provide these services long term will revolve around this area. The decision to provide Ambulatory Procedure Services was initially split into three alternatives. The first alternative was to provide services to include up to 23 hour and 59 minutes of post operative care. The second alternative was to provide services only for procedures that normally allow the patient to be sent home on the day of the procedure. The final alternative was to not provide these services at all. This final alternative was not considered a viable short term option. The demand and costs for the first two alternatives were analyzed by the team.

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[3] Total savings are based on projected reductions in all expenses except support cost.

Demand for Ambulatory Procedure Services was analyzed using Retrospective Case Mix Analysis System[4] (RCMAS) data from fiscal year 1996. Demand was estimated using inpatient workload reported for the period less those cases determined by each service chief as being beyond the capability of an ambulatory surgery setting. The demand analysis began by extracting all surgical admissions with a length of stay of two days or less from the Retrospective Case Mix Analysis System (RCMAS). This report returned 1105 total admissions. The MEPRS recorded 1115 admissions for the same time period. This indicates that in excess of 99% of the total surgical admissions recorded for RWBACH were for two days or less.

The admissions were sorted by admitting service and reviewed by each service chief. The service chiefs classified each case into one of three categories:

(1) Same Day Only - able to release patient the same calendar day as the procedure

(2) Observation (Overnight) - requires overnight postoperative recovery, but able to release patient within 23 hours and 59 minutes of "admission"

(3) Non-Ambulatory - requiring greater than 24 hours of post operative care

The resulting lists of admissions were used to quantify the demand for each alternative listed above. The Same Day demand projected retention of 73% of the previous cases and the Observation (Overnight) demand projected retention of 88% of the previous cases. The full case study at appendix B provides a further breakdown by surgical service.

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[4] RCMAS is a decision support system which provides Diagnosis Related Group based analysis of inpatient data (Patient Administration and Systems and Biostatistics Activity 1996).

The ***cost analysis*** of Ambulatory Procedure Services was also performed using FY 96 data. The methodology used was based on a model described in the Region 7 - Desert States TRICARE Region Financial Guide - January 1997 (Health Services Region VII 1997). This methodology involves determining the "hospital cost" of each service (total expenses less clinician salaries). The "hospital cost" is then compared with workload related data for the facility to determine the average cost for various admissions. The concept of "hospital cost" was used in the determination of cost for each alternative. The cost analysis used historical inpatient surgical expense data for FY 96 from the MEPRS as the baseline. The total expense of these operations was $3,740,918. The data indicated that the inpatient "hospital cost" of surgical services was $3,702,673.

The historical hospital costs were then adjusted for the projected demand explained above. Costs were adjusted by reducing the appropriate direct, ancillary, and other support by the percentage drop in workload (demand) projected.

In summary, savings in ancillary services and ward personnel expenses are expected to reduce the overall cost of surgical services. If services are restricted to Observation (Overnight)[5], a savings of ***$275,145*** is projected (before the effects of process reengineering). If services are restricted to Same Day patients only, a savings of ***$1,470,528*** is projected (before the effects of process reengineering). The low projection

[5] Includes patients capable of being released the same day and the patients requiring observation overnight.

for Observation (Overnight) reflects the inclusion of historical ward costs. As the reengineering team determines the necessary staffing for the nursing unit to support overnight care, these costs should be reduced and the savings should increase.

Process Fast-Path

Process fast-path is an activity, defined above, used to rapidly implement changes identified during the reengineering process. During this project, two opportunities for fast-path implementation were identified. The first opportunity was for the implementation of triage protocols in the emergency room. The second opportunity was for the implementation of screening protocols in the community care clinics.

Triage Protocol implementation was fast-path implemented as a response to problems with the management of demand for care in the emergency room. Both the Primary Care and Urgent Care teams identified triage as an important process for the successful reengineering of care for their core processes. The teams worked together to develop the process for fast-path implementing the triage process. The initial triage process is being targeted for implementation in the emergency room because they currently have adequate staffing to implement. Full implementation is projected following the closure of the inpatient ward and subsequent training of nursing personnel.

Screening Protocol implementation was identified and managed by the Primary Care team. The screening protocols were also identified as a method for managing demand, but the primary need is in the community care clinics only. Fast-path implementation was made possible by using existing screening protocols developed by the AMEDD for use by medics in Troop Medical Clinics. The medical staff reviewed the

protocols and approved them for select patient populations following appropriate training of both medics and the provider staff.

Both of these fast-path opportunities were relatively inexpensive to implement, were possible without great change in organizational structure, and are expected to result in improved performance for the organization. The impact of these activities on the reengineering process is detailed in the following Process Redesign section of this report.

Process Redesign

Process redesign is the heart of the reengineering effort. It is created by the reengineering of the individual business processes of each core process. At the current stage, the teams have not reengineered the core processes. They have begun to document the reengineering of individual business processes.

Patient Triage was the first business process to be reengineered. It was implemented as a fast-path process for urgent care. The genesis of this business process reengineering was discussed in the fast-path section above. The basic model of the reengineered business process is outlined in figure 5 below.

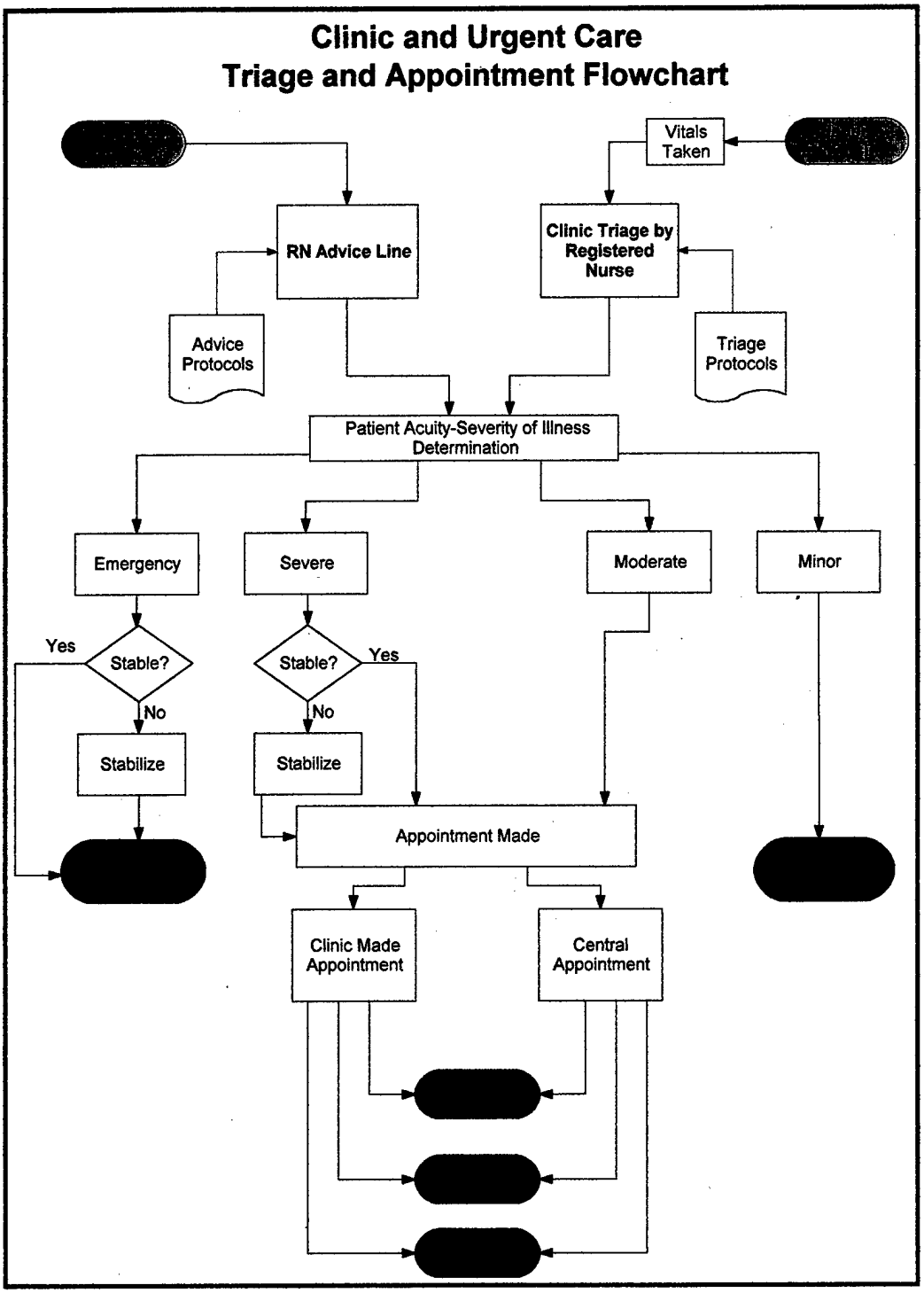

Figure 5. Triage and Appointment Flowchart

The model in this figure represents a preliminary overall concept from the team. The protocols for triage have been reviewed by members of the medical staff and are pending approval by the chief of the medical staff (Deputy Commander for Clinical Services). The team expects to create similar process flowcharts and supporting concepts of operations for important sub-processes such as the interaction between the advice line and clinic nurse triage and the determination of severity of illness. Additionally, they will determine staffing requirements and performance measures for the various components of the process.

Screening protocol implementation for use in the primary care clinics has also been tentatively approved. The sc eening process involves the use of algorithms by 91 B medical specialists and non-commissioned officers. The algorithms were developed and published in a pamphlet by the U.S. Army Health Services Command (now the U.S. Army Medical Command or MEDCOM) for use in troop medical clinics and battalion aid stations (HSC PAM 40-7-21 1992). The pamphlet is titled "Ambulatory Patient Care, Algorithm-Directed Troop Medical Clinic (ADTMC)." The algorithms are divided into major complaint categories (i.e. musculoskeletal or gastrointestinal). The algorithm allows the medical specialist to determine a level of urgency for the visit, complete a limited clinical work-up, and initiate self care or specialty clinic referral. There is an individual algorithm for each medical complaint (a total of 97 complaints). All of these actions are designed to reduce the amount of time a provider spends with an individual patient without reducing the quality of the clinical work-up and treatment provided to the patient. All of the care provided under the ADTMC program is directly supervised and signed by a credentialed provider.

Process Implementation

Process implementation entails the full implementation of a reengineered core process. As previously stated, none of the core processes has been fully reengineered at this time. The implementation of triage and screening are fast-path candidates and are not considered in this section.

Alignment of Organizational Infrastructure

Alignment of organizational infrastructure has begun in several key steps. The first indication is the staff skill training underway to implement nurse based patient triage and medical specialist based algorithm screening. Both of these activities reflect a change in staffing that is consistent with the reengineering of the facility. The second indication is the evolving development of a combined ambulatory nursing unit. This unit is described in detail below, but generally demonstrates a move toward team based work units which are consistent with the development of process focused organizations. The final indication of realignment of infrastructure is the active discussion of space management in the Reengineering Process Action Team meetings. This discussion has generated a series of proposals for changes in space utilization from individual reengineering teams.

OUTCOME

Outcome was defined in the Methods and Procedures chapter as the development of a more efficient and cost effective health care facility. Since the project is still in the process reengineering stage, there are no defined results to evaluate. However, there are two models that are emerging that will be likely outcomes of the project. The two models

are the combined Ambulatory Procedure Unit - Urgent Care Clinic - Observation Unit and the Reengineering Cost Impact Methodology.

Ambulatory Procedure Unit - Urgent Care Clinic - Observation Unit

The operational model for care in this combined unit has grown from the concept of finding economies of scale where demand does not seem to allow them. The analysis of each of these areas, the Ambulatory Procedure Unit (APU), the Urgent Care Clinic (UCC), and the Observation Unit (OBS), found that the demand for around the clock services was not present for any of the three. The nursing staff that could be "earned" under the nursing benchmark staffing model was not adequate to staff any of the areas separately. The concept of combining the inadequate staff from each area to make them

each whole was conceived as a possible solution. The model for the Combined Ambulatory Nursing Unit (CANU) is illustrated in figure 6 below.

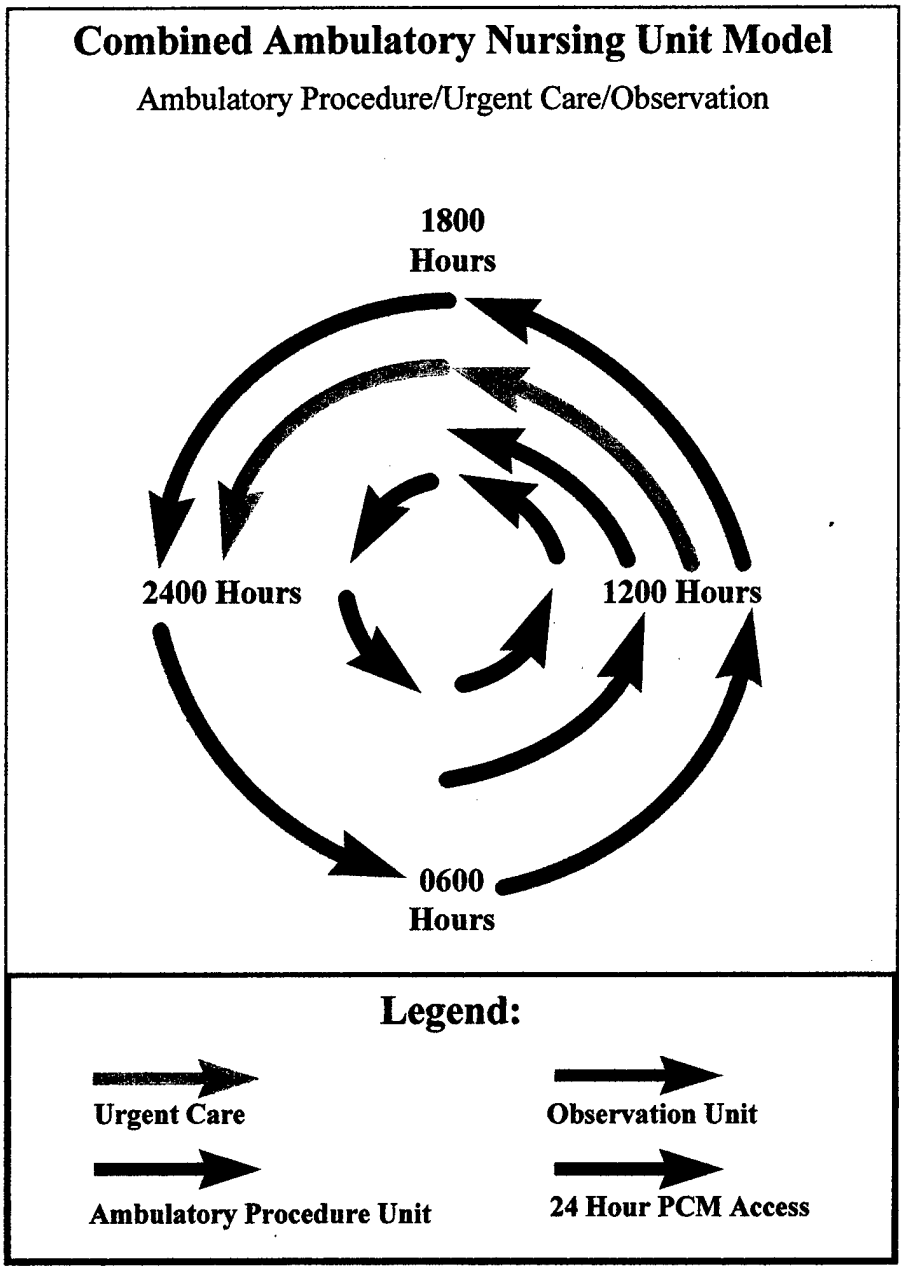

Figure 6. Combined Ambulatory Nursing Unit Model (CANU)

The CANU is projected to be housed in the area of the current Emergency Department (ED). The area will include a clinic side with individual screening rooms (previously exam rooms for the ED) and a patient observation unit that will be

constructed in two rooms adjacent to the ED. Beginning at 0600 hours, APU patients will report to the clinic side for preoperative work-up. They will then be transported to the appropriate procedure area (i.e. operating room or scope room) for their procedures. Patients will then return, if necessary[6], to the observation unit for recovery and release. The urgent care clinic will begin operations at 1200 hours on the clinic side (presumably after all the APU patients have gone downstairs or are on the observation unit). They will continue urgent care operations until 2400 hours. The observation unit will operate 24 hours per day. Staffing for the OBS will be shared for UCC and APU during the times when they are operational. This staffing will also allow the facility to maintain 24 hour access to primary care managers in accordance with TRICARE Prime standards.

[6] Some patients may be released directly from the post anesthesia care unit (PACU).

Reengineering Cost Impact Methodology

The Reengineering Cost Impact Methodology has evolved from the cost analysis of the Ambulatory Procedure Services business case. The methodology is designed to allow the command to project the resource impact of various changes in the organization. The model is displayed graphically in figure 7 below.

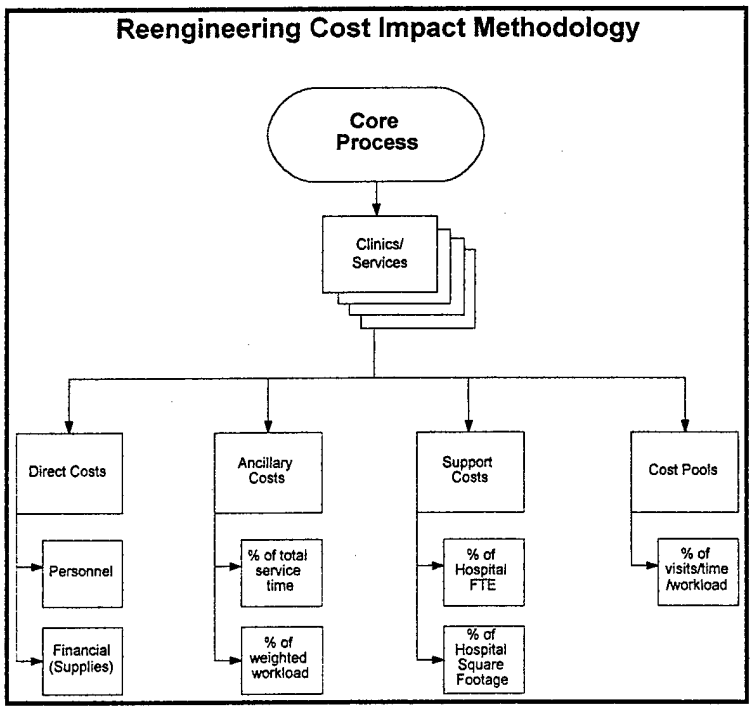

Figure 7. Reengineering Cost Impact Methodology

The model is tied to the core processes determined by the facility and can be used to assess any work center that is tracked in the MEPRS with an individual code. These work centers are indicated on the diagram as Clinics/Services. Cost impacts are then determined based on their effect on the four types of costs tracked in the MEPRS system. These four types of costs are Direct, Ancillary, Support, and Cost Pools.

Direct costs consist primarily of personnel and supply costs directly attributed to an individual work center. Personnel costs are based on full time equivalents actually

worked in the work center. Supply costs are based on the amount of supplies purchased for direct use in the work center. Nearly all work centers have some direct costs. In the model, personnel costs are adjusted based on staffing changes proposed by the teams. Supply costs are adjusted in the model by the percent of change in demand which the service projects. The impact of reengineering on direct costs will vary by work center, but can be significant. In the instance of the UCC business case, direct costs contributed 53% of the historical cost of operating the emergency room and over $900,000 in cost reduction in the combined nursing unit alternative.

Ancillary costs are generated by work centers which support direct patient care areas. Examples of ancillary work centers are pharmacy, pathology, and radiology. Additionally, services such as the operating room, anesthesia, and the post anesthesia care unit are ancillary work centers which contribute primarily to surgical services. Ancillary costs are allocated primarily to direct patient care areas, but may also be allocated to other ancillary services before final allocation to the direct patient care work centers.

Ancillary costs are allocated to clinics or services based on the percentage of the total work produced by the ancillary work center attributed to that clinic or service. The workload for the ancillary work centers is generally measured in total weighted procedure units or time of service (minutes or hours). As an example of how ancillary costs might be allocated, if the pharmacy service generated a total of 100 weighted procedure units and the medicine clinic used 45, the medicine clinic would receive 45% of the cost of producing those 100 units.

Ancillary costs contribute a very large portion of the expense of operating the facility. In FY 96, fully allocated ancillary costs were over $10 million. In the instance

of the Ambulatory Procedure Services business case, it was found that ancillary services contributed 60% of the historical cost of inpatient surgical costs. Ancillary costs are adjusted in the model by the projected percentage change in historical work load of a service or clinic. In the Same Day alternative of the Ambulatory Procedure Services business case, the potential savings in ancillary costs is nearly $800,000.

Support costs represent the overhead cost of operating the facility. Support costs are generated by administrative areas such as the Command Suite, Personnel, and Resource Management, and from facility support areas such as maintenance and housekeeping. Support costs are allocated to nearly every work center in the facility. They are eventually allocated to the direct care work centers in the accounting step down process.

Support costs are largely made up of direct costs in the administrative and facility support areas. These costs are allocated to work centers based on two factors. Administrative support costs are allocated based on the percentage of facility full time equivalents (FTE) used by an individual work center. Facility support costs are allocated based on the percentage of total facility square footage used by a work center. Support costs are projected in the model based on proposed changes in staffing and facility space utilization.

Support costs are largely unavoidable in the operation of a medical facility. However, inefficient use of resources will inflate support costs. In the instance of the Ambulatory Procedure Services, the business case revealed that the inpatient ward received $240,000 in support costs based on square footage, most of which was rarely used for patient care due to the low patient census in FY 96.

Cost Pools are the final cost sources analyzed by the model. Cost pools are created as a way to allocate costs from a shared work center. Examples of cost pools are the inpatient ward and the outpatient/specialty clinic. Costs in these pools come from all three of the previous cost sources. Cost pools are allocated based on percent of work load, much like ancillary costs. They are adjusted in the model based on projected change in this work load. In the case of the inpatient ward cost pool, the work load factor was patient bed days. This cost pool contributed $703,000 (19%) to the cost of inpatient surgery in FY 96. All of these costs are projected as savings if the facility performs only same day procedures (no overnight observation).

CHAPTER 4 - DISCUSSION

While the reengineering activities at Raymond W. Bliss Army Community Hospital (RWBACH) are still underway, the facility has made significant progress and the reengineering activities have contributed greatly to that progress. The development of the CANU and the Reengineering Cost Impact Methodology model will serve as prototypes for other processes in the continued reengineering of the organization. Reengineering has become a common term at RWBACH, and involvement in the project is growing as the facility proceeds into the process reengineering stage of the project. A review of the progress to date will now be presented, still following the Structure-Process-Outcome format of the report.

STRUCTURE

Uncertainty is an operational reality for health care in general, and RWBACH is no exception. This uncertainty is consistent with the evolving study of chaos theory which has been applied to management of complex systems such as health care (Sharp and Priesmeyer 1995). Sharp and Priesmeyer write that chaos theory proposes there are likely a series of variables, rather than a single variable, causing changes in the system (1995). The reengineering project has attempted to consider several such variables within its structure. The project's structure was presented in the three elements of budget, staffing, and time. The future state of each of these elements continues to be somewhat

uncertain, but each are likely to impact the decisions and outcomes of the reengineering project.

Budget

As described in the Results chapter, the future budget picture for RWBACH remains unclear. The picture is possibly further clouded by the impending implementation of Enrollment Based Capitation Funding and changes in the Supplemental Care and Third Party Collections programs. Further, the implementation of the TRICARE managed care support contract in the region has altered yet more variables in the budgeting arena. As the facility struggles with these budget issues, they must continue to work toward developing their future structure.

Staffing

In the midst of the reengineering efforts at RWBACH, staffing changes have been forced upon the facility by external forces. The most significant of these impacts has been the Army Medical Corps specialty consultants. The consultant for pediatrics has determined that RWBACH will not be allocated a military pediatrician in the summer of 1997 when the current pediatrician departs. Additionally, a bid to the radiology consultant for a military radiologist was denied. The military radiologist would have allowed the facility to eliminate a contract costing over $290,000 annually. These external decisions illustrate some of the limits local facilities face in creating a cost effective infrastructure.

Time

The time constraints of the project are based on executing a budget for fiscal year 1998 (FY 98). The facility has determined that in order to be able to meet the impending budget of FY 98, they must be positioned to take advantage of the efficiencies designed in the reengineering project. However, as noted in the Results chapter, no final approval has been forthcoming for the closure of the ward.

Much of the reengineering efficiencies projected are contingent on the closure of the inpatient ward. The conversion of the emergency room to an urgent care clinic follows the ward closure by 45 days in the facility plan submitted to the Army in January 1997. The majority of savings projected in the Ambulatory Procedure Services business case are reflections of the elimination of the ward infrastructure. And most importantly, the full implementation of the combined nursing unit and the triage system in the clinics is contingent upon harvesting staff from the closed ward.

PROCESS

The process component of the reengineering project has yielded a great deal of value for the organization. The development of scopes for the core processes has allowed the facility to focus on a vision of the organization in the future. The business cases have provided both the team members and the command group a better understanding of the business aspects of health care. The facility has a clearer picture of who they serve, what services they provide, and how much it costs to provide different aspects of those services.

Scopes

The change in scope for the Urgent Care Clinic from and Emergency Room is a significant change, but this change seems to be in accordance with the demand projected by historical workload. The scopes for primary care and urgent care should effect a desirable shift in patient care from the emergency room setting to the primary care clinic. The primary care clinic setting is generally must less expensive. At RWBACH, the average cost of a primary care visit was $29 per visit less than an emergency room visit. The most inexpensive clinic (CCC #1) was $48 per visit less than an emergency room visit. Based on the average cost, a simple calculation indicates the savings possible from this shift alone is over $630,000[7].

Business Cases

The business cases provided specific findings for each of the core processes. Taken individually, each case presents a strong indication that significant savings can be found for each core process. The findings are evident from the analysis of both the demand for the services and the cost of providing them.

Primary Care analysis indicates that the provision of primary care at RWBACH is at least comparable in cost to other Army primary care clinics. However, since the RWBACH clinics are busier than the other clinics, it is reasonable to expect they could leverage some economies of scale and become more efficient. It is possible that this is a reflection of the opportunity cost of the Community Care Clinic (CCC) concept. RWBACH operates three separate CCC's on the same installation. The CCC's were

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[7] Assuming 5% of visits are true emergencies, remainder is 21,775 visits x $29/visit = $631,475.

created as an attempt to push the provision of health care to the patient, consistent with the practices of patient focused care discussed in the literature review section. Unfortunately the CCC's did not fully follow the tenets of patient focused care. They retained specialized personnel, such as laboratory technicians, and failed to maximize the use of multi-skilled personnel when they failed to adequately train medical specialists to perform a variety of clinical and administrative/clerical functions. It is not too difficult to understand how this may impair RWBACH's ability to gain the advantage of economies of scale. While RWBACH may be willing to pay the price of the opportunity to have the economies of scale a consolidated clinic might provide, the primary care reengineering team needs to assess what this cost is, and what can be done to reduce it. The impact of the triage and screening processes may improve the efficiency of the clinics, but they will only reduce costs if they allow the clinics to meet unmet demand for care or allow the clinics to reduce overall expenses per visit.

Urgent Care analysis, as discussed above, indicated that demand does not justify the current 24 hour provision of care. Specifically, the amount of care provided during the hours projected to be dropped in the two alternatives of the case illustrates an potential opportunity for improved efficiency. Using the historical hours of operation and workload, the demand for services was 2.6 visits per hour. However, using the projected workload from the two urgent care alternatives, the elimination of the third shift raises this number to 3.7 visits per hour and the 12 hour alternative raises it further to 4.2 per hour. None of these rates (visits/hour) are in excess of what the providers can produce. Even if the urgent care operations do not have a lower cost per hour than the emergency

room, which is unlikely, there will be significant savings from either alternative and very few patients will be affected.

Ambulatory Procedure Services business case analysis emphasized several issues relating to both the demand for and cost of surgical services at RWBACH. The demand analysis showed that the majority of surgical cases done at RWBACH could be done in the ambulatory setting. Even if the facility were to retain only those cases that are discharged the same calendar day, they could retain approximately 73% of cases previously admitted. Providing overnight post-operative nursing care raises this number to 88%.

A variety of issues were discovered during the cost analysis for this core process. The cost per admission was significantly higher for the military surgeons than for CHAMPUS partnership providers. The reason for the discrepancy was that the military surgeons were using a greater number of bed days per patient. Bed days drive the amount of ward costs allocated to the service, which in turn is reflected in the cost per admission. In an attempt to find out how costs are accumulated in the ward, the impact of support costs, particularly from square footage, was uncovered. The move from inpatient to ambulatory should strip the majority of this cost driver from the surgical service. However, for the organization to realize an overall savings, this space must be productively utilized for some other function. The current plan is to convert it for use by an activity currently located outside the facility core and turn over their existing building to the installation.

In addition to the removal of the ward expenses, the operating room related ancillary services (operating suite, anesthesia, post anesthesia care unit, and central

sterilization) must also realize a reduction in expenses. As a minimum, these services must reduce expenses on the same order of magnitude that demand for surgical services drops (i.e. if surgical demand drops 15%, expenses from these services must drop 15%). While some of this drop will occur due to a reduction in supply expenses, the services will also have to eliminate personnel expenses.

During the calculation of costs for the Ambulatory Procedure Services, costs per admitting DRG were calculated. This was done as a function of the "hospital cost" model discussed in the Methods and Procedures chapter. These figures are presented in the full business case at appendix B. The results of this calculation are useful to gauge the projected impact of the reengineering. However, the actual impact cannot be measured for two reasons. The first reason is that diagnosis level data are not yet collected accurately at RWBACH. The Ambulatory Data System is designed to collect these data but has not been performing well to date. Improvements are currently being engineered into the data collection process. The second reason is that the patients will no longer be admitted and thus will not be diagnosed based on DRG's. In the ambulatory setting, patients are diagnosed using International Classification of Diseases-Version 9 (ICD-9) codes and Current Procedural Terminology (CPT) codes. There is no simple cross-walk between the DRG and ICD-9/CPT coding systems. The conceptual model for cost per diagnosis or procedure will still be valid, provided the ICD-9 and CPT codes are accurately collected, but the resulting numbers will not be directly comparable.

Process Fast-Path

Process fast-path was used to implement two processes, Patient Triage and Patient Screening. Both of these business processes are consistent with the guidelines suggested

for selecting fast-path candidates. They are in concert with the final goals of the organization and they require a minimal cost to implement. However, fast-path did put the teams charged with their implementation at risk of losing sight of the larger picture. While working to implement the triage process, the urgent care team lost track of the process for care of observation patients. While working to implement the screening process, the primary care team lost track of the process for providing physical exams. Both of the lost processes have been placed back on track, but the potential for distraction was clearly demonstrated.

OUTCOME

The outcomes reported in the Results chapter were the Combined Ambulatory Nursing Unit (CANU) and the Reengineering Cost Impact Model. While reengineering continues at RWBACH, these prototype models indicate that the project is beginning to yield benefits for the organization and is positioning it for significant increases in operating efficiency and budgetary savings.

Combined Ambulatory Nursing Unit

The combined ambulatory nursing unit (CANU) evolved from the challenge to find an efficient way to deliver a group of services that were not cost effective by themselves. The mechanism anticipated to enable this to happen is the sharing and cross training of personnel. This practice will reflect the concepts of "patient focused care" discussed in the literature review. Getting to the concept of this shared unit was difficult due to very defined roles and scopes of practice for military personnel, particularly

nursing personnel. This portends poorly for reengineering in general, but RWBACH has begun to develop a way to work within the bounds of the restrictions.

Creating this multifunctional unit has generated a requirement that nursing staff be cross trained with a variety of nursing skills. The CANU will require nurses to work in both the ambulatory clinic setting and in an observation unit similar to the traditional inpatient ward setting. Additionally, the CANU will perform pre-admission, pre-operative, post-operative, and urgent care triage nursing functions. This will require nursing personnel to gain a wide scope of practice but will allow them to stay primarily within the traditional nursing roles determined by the military nursing community.

The combining of staff and other resources in the CANU is projected to deliver significant savings to the organization. As previously discussed, none of the individual functions has the demand for services to operate full time. Additionally, in the civil service and military work environment, it is difficult to efficiently operate part-time operations. The unit creates an opportunity to consolidate the management and support infrastructure of the three separate units into a single entity. By doing this, the organization is able to offer a scope of services to patients that would otherwise not be possible due to budget constraints.

In addition to aiding the efficiency of the organization, the Combined Nursing Unit would minimize the impact on the TRICARE contract by retaining a greater portion of the previous inpatient workload done in the facility. Even if the unit does not prove to be optimally cost effective in the long run, it will allow time to further assess the shift of care into the civilian community.

Reengineering Cost Impact Model

The Reengineering Cost Impact Model has great potential use for the organization. The model can be used as a fiscal performance measurement tool for any of the business processes in the facility. The model uses readily accessible MEPRS data and if the model is used routinely to evaluate the performance of departments and divisions it may improve the accuracy of data collection at the facility. It is flexible enough for use below the business process level because it can be applied to any work center or group of work centers that is/are tracked in the MEPRS. A proposed scheme for applying the model is presented in figure 8 below.

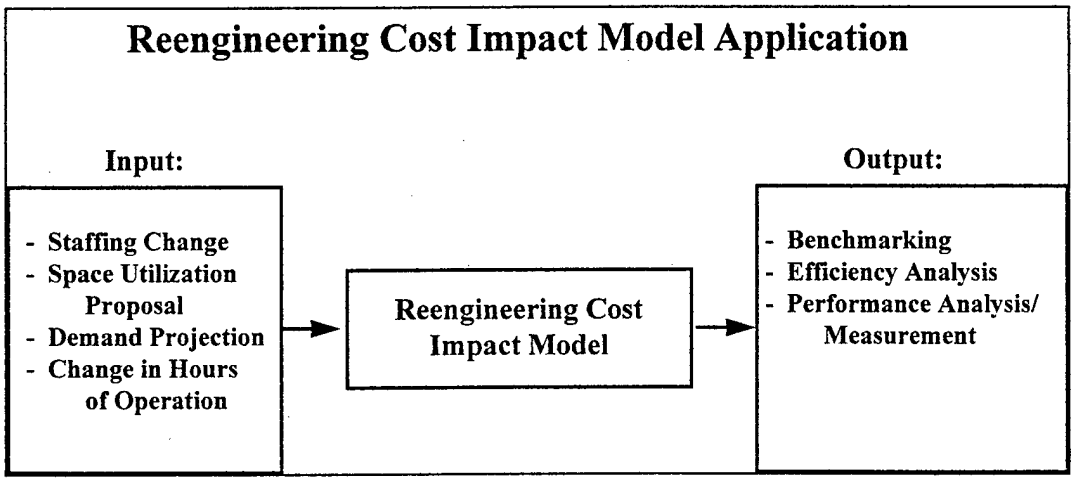

Figure 8. Reengineering Cost Impact Model Application Scheme

The model provides an excellent tool for illustrating how support costs are allocated. This will be useful for space planning in the facility, since square footage is one of the key determinants of support cost allocation. Finally, the model will be equally useful during the reengineering of administrative areas after the facility's clinical master plan has been established.

CHAPTER 5 - CONCLUSIONS

The purpose of this project was to provide a case study of the application of business process reengineering and reengineering techniques to the restructuring of Raymond W. Bliss Army Community Hospital. The reengineering project is still underway, but the case study has documented a variety of useful deliverables which have already been produced by the reengineering process. The application of business process reengineering and its techniques has been beneficial to the restructuring of the facility.

The initial development of core process scopes and business cases and the development of the Reengineering Cost Impact Model indicate significant opportunities exist for reducing costs and improving performance of the organization. Even without the reengineering of administrative and support areas, potential savings appear great. Combining the savings projected from all of the business cases, savings between $860,000 to $2,640,000 have been identified. The final savings realized by the facility will be determined during the ongoing process reengineering stage and during the development of the comprehensive business plan for the organization.

The reengineering model selected insured broader participation by incorporating staff from both clinical and administrative areas on the teams. This multidisciplinary participation significantly reduced organizational resistance, a critical element cited in the literature (Caudle 1995, Clemons 1995, Kissler 1996).

The methodology has provided a valuable framework for the undertaking of restructuring RWBACH from an inpatient hospital to an ambulatory care facility. The process focus has allowed the staff to break down the components of the organization into manageable pieces. The focus on performance measurement should position them for favorable comparison and evaluation by public or private agencies. The prototype models generated should provide an executable series of activities for the organization to implement while realizing the savings required to meet the projected budgets of the future.

CHAPTER 6 - RECOMMENDATIONS

Authors have contended that the skills and techniques of reengineering are not a simple extension of common management or leadership skills (Caudle 1995, Kissler 1996). The observation of this project is consistent with their contention. The degree of restructuring in this reengineering project required an additional level of understanding about the organization by participants on both the reengineering teams and the resource pool. Reengineering makes these activities possible by incorporating the use of process analysis (Armistead 1995, Caudle 1995, Champy 1995, Hammer and Champy 1993, GAO 1995, Kissler 1996).

Reengineering taxed the facility's ability to collect and analyze data in large volume over a short period of time. At the same time, it provided a valuable opportunity for staff members to become familiar with the data collection systems used by higher headquarters to evaluate the organization. This growth experience should benefit the organization as it moves into a future which promises to be even more data driven.

Providing the staff with dedicated education on process analysis and drawing comparisons to the more familiar tools of total quality management was helpful. Additionally, two of the teams benefited from the use of flowcharting software. A simple "drag and drop" package (Flowcharting PDQ™ by Patton and Patton), was provided to the teams to aid in graphically representing the processes they are reengineering.

Timelines for deliverable business process reengineering products are essential. Timelines were set for the completion of each step in the model but the deliverable products were purposely developed as the process developed. The primary reason for the development of deliverables as the process developed was a lack of experience in reengineering on the part of the teams and leadership. While the leadership had a general idea of what was required at the end of each step, the final products were determined based on what data was available. While this is a realistic approach given the situation, the structure of formatted deliverables would aid in maintaining the focus and momentum of the project.

Performance measurement is critical to the success of any organization. The literature review documents the importance of performance measurement in successful reengineering (Caudle 1995, Kissler 1996, Maull 1995). The Joint Commission on the Accreditation of Healthcare Organizations has begun a transition to include performance measurement systems in their survey process (JCAHO 1997). RWBACH should take the opportunity presented in the reengineering process to establish an integrated performance measurement system in their core and business processes. The Reengineering Cost Impact Model provides a beginning for the development of the required performance measurement system.

The data systems at the facility level are awkward and cumbersome for pulling decision support data. Data at the headquarters level lacks detail and accuracy sufficient to make decisions, in part because of poor data accuracy from the facility. The fielding of the MHSS Corporate Executive Information System may reduce this problem, but the data quality problems may still exist. Facilities must learn to use the data in their local

systems on a daily basis. As previously discussed, the increased use of the data at the local level should improve the quality of the data for both local decision making and decision making by higher headquarters.

External assistance for reengineering in the Military Health Services System (MHSS) is limited. The Office of the Assistant Secretary of Defense for Health Affairs (OASD-[HA]) and the Army Medical Command (MEDCOM) both developed models which provided "guidance" to the facility to apply for "permission" to downsize from a hospital to an ambulatory facility. While these guidelines established a 120 day suspense for notifying the service of the proposal for major change, neither have been able to execute the decision when the proposal was submitted. There is little coordination of the downsizing activities apparent at the facility level. Multiple functional areas appear to have play in the decision making chain. While this degree of input is likely necessary, the facility is left to try and deal with each independently, struggle to meet their requests for information, continue the local reengineering activities, and maintain daily operational activities. As the MHSS continues to downsize, OASD-(HA) and MEDCOM should task one directorate to coordinate these activities for their respective organizations.

The results of this project indicate that there are numerous opportunities to increase the efficiency and effectiveness of RWBACH through process reengineering. The prototype models and fast-path implemented processes have established a script for future successful restructuring of the organization. However, this researcher is not naïve enough to expect that every available opportunity will be exploited. Whether this project is simply an exercise in the time honored military tradition of trading space for time, or it

actually helps create a viable military health care facility for the future will be the true test of its value.

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Appendix A

Reengineering Team Charters

Outpatient Primary Care

Reengineering Team Charter

Raymond W. Bliss Army Community Hospital has begun a reengineering initiative for the core processes of the organization. The Reengineering Process Action Team, in conjunction with the Quality Council (QC) has determined the four core processes of RWBACH. Four teams have been chartered to reengineer each of the core processes. Each of these teams will address a separate core process. Your team will address ***Outpatient Primary Care.***

The guiding factors behind the reengineering are:

- the facility must meet a budget of $15 million in fiscal year 1998;
- there will no longer be inpatient beds at RWBACH;
- any actions must be analyzed in light of the TRICARE contract due to begin on 1 April 1997;
- and any reengineering actions must be implemented before or during fiscal year 1998.

Below is the basic charter and guidance for the reengineering teams.

Charter

Each reengineering team will follow the same basic structure for reengineering their process. The reason for establishing this structure is to insure the foundation for future decision making is clearly defined early in the process. This will allow the teams to communicate among each other and provide a common method for reporting progress to the Reengineering Process Action Team and the QC.

Structure

Step One - Each team will fully define the scope of their core process. The purpose is to define not only what the core process is, but who carries it out. The scope must include:

⇒ a detailed description of the types/levels of services provided
⇒ the ***general*** activities and/or functions within the process
⇒ TRICARE impacts or considerations
⇒ how are pertinent TRICARE standards addressed
⇒ points of patient access
⇒ any significant limitations or assumptions the team wishes to consider.

Step Two - Each team will develop a business case for their scope. The purpose of the case is to determine the extent to which the process can be executed within the budget limitations. The case should include:

⇒ a general cost analysis (MEPRS and cost data summary analysis)
⇒ a service demand analysis (breakdown by TRICARE beneficiary category)
⇒ any potantial cost shifting to supplemental care

Step Three - Each team will perform a process analysis of their process.

⇒ flow of the ideal process
⇒ flow of the current process
⇒ analysis of the gap between the two and change required to close the gap
⇒ definition/design of the reengineered process
⇒ space and resource requirements analysis

Step Four - Develop a business plan for the reengineered process

⇒ develop a detailed service demand analysis
⇒ develop a detailed cost analysis based on service demand analysis
⇒ develop an implementation plan with timelines

Guidance

- A resource pool has been developed to assist each of the teams. The resource pool is a collection of people to help gather available data for the teams to use in developing their business cases, analyzing their processes, and completing their business plans. While the resource pool members are available to assist the teams in collection and interpretation of the data, each team is responsible for the final analysis and application of the data.

- The Quality Council establishes the timelines for the reengineering teams. These timelines are to be strictly adhered to. One of the primary requirements of the reengineering process is to be able to implement the plan and realize the improvements before or during fiscal year 1998. If the individual reengineering teams fail to meet their timelines, the entire reengineering process may be jeopardized.

- The reengineering teams will update the Reengineering Process Action Team with oral briefings on a weekly basis. This means that the work of data collection and interpretation must be accomplished between weekly Reengineering Process Action Team meetings. The results will be relayed to the QC regularly. The primary purpose of these weekly meetings is to keep the teams synchronized throughout the process. Conflicts should be identified and discussed in these Reengineering Process Action Team meetings. Any issues that cannot be resolved by the Reengineering Process Action Team will be submitted to the QC for arbitration. This should not be a frequent requirement as members are expected to work openly and based on the interests of optimizing patient care rather than divisional, departmental, or other agendas as motivation.

- The Reengineering Process Action Team will provide written reports to the QC no less than monthly.

Urgent Care

Reengineering Team Charter

Raymond W. Bliss Army Community Hospital has begun a reengineering initiative for the core processes of the organization. The Reengineering Process Action Team, in conjunction with the Quality Council (QC) has determined the four core processes of RWBACH. Four teams have been chartered to reengineer each of the core processes. Each of these teams will address a separate core process. Your team will address ***Urgent Care.***

The guiding factors behind the reengineering are:

- the facility must meet a budget of not more than $15 million dollars in fiscal year 1998;
- there will no longer be inpatient beds at RWBACH;
- any actions must be analyzed in light of the TRICARE contract due to begin on 1 April 1997;
- and any reengineering actions must be implemented before or during fiscal year 1998.

Below is the basic charter and guidance for the reengineering teams.

Charter

Each reengineering team will follow the same basic structure for reengineering their process. The reason for establishing this structure is to insure the foundation for future decision making is clearly defined early in the process. This will allow the teams to communicate among each other and provide a common method for reporting progress to the Reengineering Process Action Team and the QC.

Structure

Step One - Each team will fully define the scope of their core process. The purpose is to define not only what the core process is, but who carries it out. The scope must include:

⇒ a detailed description of the types/levels of services provided
⇒ the ***general*** activities and/or functions within the process
⇒ TRICARE impacts or considerations
⇒ how are pertinent TRICARE standards addressed
⇒ points of patient access
⇒ any significant limitations or assumptions the team wishes to consider.

Step Two - Each team will develop a business case for their scope. The purpose of the case is to determine the extent to which the process can be executed within the budget limitations. The case should include:

⇒ a general cost analysis (MEPRS and cost data summary analysis)
⇒ a service demand analysis (breakdown by TRICARE beneficiary category)
⇒ any potantial cost shifting to supplemental care

Step Three - Each team will perform a process analysis of their process.

⇒ flow of the ideal process
⇒ flow of the current process
⇒ analysis of the gap between the two and change required to close the gap
⇒ definition/design of the reengineered process
⇒ space and resource requirements analysis

Step Four - Develop a business plan for the reengineered process

⇒ develop a detailed service demand analysis
⇒ develop a detailed cost analysis based on service demand analysis
⇒ develop an implementation plan with timelines

Guidance

- A resource pool has been developed to assist each of the teams. The resource pool is a collection of people to help gather available data for the teams to use in developing their business cases, analyzing their processes, and completing their business plans. While the resource pool members are available to assist the teams in collection and interpretation of the data, each team is responsible for the final analysis and application of the data.

- The Quality Council establishes the timelines for the reengineering teams. These timelines are to be strictly adhered to. One of the primary requirements of the reengineering process is to be able to implement the plan and realize the improvements before or during fiscal year 1998. If the individual reengineering teams fail to meet their timelines, the entire reengineering process may be jeopardized.

- The reengineering teams will update the Reengineering Process Action Team with oral briefings on a weekly basis. This means that the work of data collection and interpretation must be accomplished between weekly Reengineering Process Action Team meetings. The results will be relayed to the QC regularly. The primary purpose of these weekly meetings is to keep the teams synchronized throughout the process. Conflicts should be identified and discussed in these Reengineering Process Action Team meetings. Any issues that cannot be resolved by the Reengineering Process Action Team will be submitted to the QC for arbitration. This should not be a frequent requirement as members are expected to work openly and based on the interests of optimizing patient care rather than divisional, departmental, or other agendas as motivation.

- The Reengineering Process Action Team will provide written reports to the QC no less than monthly.

Ambulatory Procedure Services

Reengineering Team Charter

Raymond W. Bliss Army Community Hospital has begun a reengineering initiative for the core processes of the organization. The Reengineering Process Action Team, in conjunction with the Quality Council (QC) has determined the four core processes of RWBACH. Four teams have been chartered to reengineer each of the core processes. Each of these teams will address a separate core process. Your team will address ***Ambulatory Procedure Services.***.

The guiding factors behind the reengineering are:

- the facility must meet a budget of not more than $15 million dollars in fiscal year 1998;
- there will no longer be inpatient beds at RWBACH;
- any actions must be analyzed in light of the TRICARE contract due to begin on 1 April 1997;
- and any reengineering actions must be implemented before or during fiscal year 1998.

Below is the basic charter and guidance for the reengineering teams.

Charter

Each reengineering team will follow the same basic structure for reengineering their process. The reason for establishing this structure is to insure the foundation for future decision making is clearly defined early in the process. This will allow the teams to communicate among each other and provide a common method for reporting progress to the Reengineering Process Action Team and the QC.

Structure

Step One - Each team will fully define the scope of their core process. The purpose is to define not only what the core process is, but who carries it out. The scope must include:

⇒ a detailed description of the types/levels of services provided
⇒ the ***general*** activities and/or functions within the process
⇒ TRICARE impacts or considerations
⇒ how are pertinent TRICARE standards addressed
⇒ points of patient access
⇒ any significant limitations or assumptions the team wishes to consider.

Step Two - Each team will develop a business case for their scope. The purpose of the case is to determine the extent to which the process can be executed within the budget limitations. The case should include:

⇒ a general cost analysis (MEPRS and cost data summary analysis)
⇒ a service demand analysis (breakdown by TRICARE beneficiary category)
⇒ any potantial cost shifting to supplemental care

Step Three - Each team will perform a process analysis of their process.

⇒ flow of the ideal process
⇒ flow of the current process
⇒ analysis of the gap between the two and change required to close the gap
⇒ definition/design of the reengineered process
⇒ space and resource requirements analysis

Step Four - Develop a business plan for the reengineered process

⇒ develop a detailed service demand analysis
⇒ develop a detailed cost analysis based on service demand analysis
⇒ develop an implementation plan with timelines

Guidance

- A resource pool has been developed to assist each of the teams. The resource pool is a collection of people to help gather available data for the teams to use in developing their business cases, analyzing their processes, and completing their business plans. While the resource pool members are available to assist the teams in collection and interpretation of the data, each team is responsible for the final analysis and application of the data.

- The Quality Council establishes the timelines for the reengineering teams. These timelines are to be strictly adhered to. One of the primary requirements of the reengineering process is to be able to implement the plan and realize the improvements before or during fiscal year 1998. If the individual reengineering teams fail to meet their timelines, the entire reengineering process may be jeopardized.

- The reengineering teams will update the Reengineering Process Action Team with oral briefings on a weekly basis. This means that the work of data collection and interpretation must be accomplished between weekly Reengineering Process Action Team meetings. The results will be relayed to the QC regularly. The primary purpose of these weekly meetings is to keep the teams synchronized throughout the process. Conflicts should be identified and discussed in these Reengineering Process Action Team meetings. Any issues that cannot be resolved by the Reengineering Process Action Team will be submitted to the QC for arbitration. This should not be a frequent requirement as members are expected to work openly and based on the interests of optimizing patient care rather than divisional, departmental, or other agendas as motivation.

- The Reengineering Process Action Team will provide written reports to the QC no less than monthly.

Outpatient Referral Care

Reengineering Team Charter

Raymond W. Bliss Army Community Hospital has begun a reengineering initiative for the core processes of the organization. The Reengineering Process Action Team, in conjunction with the Quality Council (QC) has determined the four core processes of RWBACH. Four teams have been chartered to reengineer each of the core processes. Each of these teams will address a separate core process. Your team will address ***Outpatient Referral Care.***

The guiding factors behind the reengineering are:

- the facility must meet a budget of not more than $15 million dollars in fiscal year 1998;
- there will no longer be inpatient beds at RWBACH;
- any actions must be analyzed in light of the TRICARE contract due to begin on 1 April 1997;
- and any reengineering actions must be implemented before or during fiscal year 1998.

Below is the basic charter and guidance for the reengineering teams.

Charter

Each reengineering team will follow the same basic structure for reengineering their process. The reason for establishing this structure is to insure the foundation for future decision making is clearly defined early in the process. This will allow the teams to communicate among each other and provide a common method for reporting progress to the Reengineering Process Action Team and the QC.

Structure

Step One - Each team will fully define the scope of their core process. The purpose is to define not only what the core process is, but who carries it out. The scope must include:

⇒ a detailed description of the types/levels of services provided
⇒ the ***general*** activities and/or functions within the process
⇒ TRICARE impacts or considerations
⇒ how are pertinent TRICARE standards addressed
⇒ points of patient access
⇒ any significant limitations or assumptions the team wishes to consider.

Step Two - Each team will develop a business case for their scope. The purpose of the case is to determine the extent to which the process can be executed within the budget limitations. The case should include:

⇒ a general cost analysis (MEPRS and cost data summary analysis)
⇒ a service demand analysis (breakdown by TRICARE beneficiary category)
⇒ any potantial cost shifting to supplemental care

Step Three - Each team will perform a process analysis of their process.

⇒ flow of the ideal process
⇒ flow of the current process
⇒ analysis of the gap between the two and change required to close the gap
⇒ definition/design of the reengineered process
⇒ space and resource requirements analysis

Step Four - Develop a business plan for the reengineered process

⇒ develop a detailed service demand analysis
⇒ develop a detailed cost analysis based on service demand analysis
⇒ develop an implementation plan with timelines

Guidance

- A resource pool has been developed to assist each of the teams. The resource pool is a collection of people to help gather available data for the teams to use in developing their business cases, analyzing their processes, and completing their business plans. While the resource pool members are available to assist the teams in collection and interpretation of the data, each team is responsible for the final analysis and application of the data.

- The Quality Council establishes the timelines for the reengineering teams. These timelines are to be strictly adhered to. One of the primary requirements of the reengineering process is to be able to implement the plan and realize the improvements before or during fiscal year 1998. If the individual reengineering teams fail to meet their timelines, the entire reengineering process may be jeopardized.

- The reengineering teams will update the Reengineering Process Action Team with oral briefings on a weekly basis. This means that the work of data collection and interpretation must be accomplished between weekly Reengineering Process Action Team meetings. The results will be relayed to the QC regularly. The primary purpose of these weekly meetings is to keep the teams synchronized throughout the process. Conflicts should be identified and discussed in these Reengineering Process Action Team meetings. Any issues that cannot be resolved by the Reengineering Process Action Team will be submitted to the QC for arbitration. This should not be a frequent requirement as members are expected to work openly and based on the interests of optimizing patient care rather than divisional, departmental, or other agendas as motivation.

The Reengineering Process Action Team will provide written reports to the QC no less than monthly.

Appendix B

Reengineering Team

Scopes of Service

Primary Care
Scope of Services
(A product of the Primary Care Reengineering Team)

General Description of Scope and Mission

Primary care clinics will provide healthcare to TRICARE Prime enrolled patients on an empanelment basis and other eligible beneficiaries on a space available basis. Practitioners will serve as Primary Care Manager (PCM) for the empaneled patients.

Age Specific Patients Served

Primary care will be provided to all age categories of patients. Neonates (birth to 2 months) and infants (2 months to 1 year) will be cared for by pediatricians.

Scope and Complexity of Patient Care

The scope of care provided within the clinics encompasses primary health care as well as preventive care. Primary care will include upper respiratory infections, urinary tract infections, minor musculoskelatal injuries, etc. Preventive care will include services identified under the TRICARE Prime option to include well women and baby exams, and school, sports, and military physical exams. Aviation medicine will also be available. Additionally, minor surgical procedures such as wart and toenail removals and excisions of benign lesions will be performed.

Limits to Care Provided

Patients will receive primary care level medical services in the clinics. While equipment is maintained to deal with emergency problems (such as crash carts, suction apparatus, nebulizers, etc.), patients with potential for rapid deterioration are referred to emergency departments. Examples of these patients include chest pain of cardiac nature, severe dyspnea, fractures, and complex lacerations. Patients with chronic medical problems beyond the purview of the available primary care practitioners are referred to the appropriate specialist as directed by the TRICARE health care finders. *Primary care practitioners will resume care for these patients when an appropriate treatment plan has been devised.*

Access to Care

Access to the primary care clinics will be through appointment or triage only. Appointments will be made by calling the appropriate telephone numbers for the patient's enrolled clinic during the hours of operation. The appointment will be made within the TRICARE standards of access and appointment waiting times for acute, routine, or well visits. Triage is done in two venues, for those patients who call an advice/triage line and for those patients who present as walk-ins. Both groups will be screened by qualified personnel for acquity and severity of illness/injury and directed to an emergency department, their proper clinic for appointing, or the urgent care service as medically indicated and within the TRICARE standards for access to care.

Staff Support Required

Practitioners consist of physicians (MD or DO), nurse practitioners, and physicians assistants. Registered nurses, licensed practical nurses, and medical specialists are in support. Receptionist, medical record management, and appointment tasks assists the patient flow. Laboratory assistance is available. Administration is provided by Clinic Directors, Head Nurses, and Non-commissioned Officers in Charge. Staffing requirements and patterns are driven by patient demand, number of practitioners, procedures performed, and historical data. Administration assures that all personnel work within the scope of their privileges and job descriptions. Ongoing training is provided to support the scope and mission.

Standards and Guidelines Utilized

Practice will be governed by the facility's medical rules, regulations, and bylaws, and by guidelines set forth by the American Academy of Family Practitioners, the American College of Emergency Physicians, the American Academy of Pediatricians, and the American Nurses Association Standards of Practice and Standards of Ambulatory Practice.

Method for Assessing Adequacy of Health Care Services

Patients are interviewed and examined, so that subjective and objective data are obtained. Diagnostic studies such as laboratory tests and roentgenograms are obtained at the practitioner's discretion. Interventions are based on accumulated subjective and objective data. Appropriate patient education is executed. Referrals and consultations are obtained through health care finders or other designated mechanisms. Health care finders will coordinate specialty care with the primary care managers controlling and monitoring the process.

Urgent Care

Scope of Services

(A product of the Urgent Care Reengineering Team)

General Description of Scope and Mission

Urgent health care services will be provided to all TRICARE Prime enrolled patients and other eligible beneficiaries on a space available basis. Practitioners will provide primary and urgent care treatment on a less that 24 hour per day basis and will be accessible without a prior doctor patient relationship (non-Primary Care Manager [PCM]).

Age Specific Patients Served

Urgent care will be provided to all age categories of patients. Pediatricians will be consulted as necessary for care of neonates (birth to 2 months) and infants (2 months to 1 year).

Scope and Complexity of Patient Care

The scope of care provided will include the immediate recognition, evaluation, care, and disposition of patients with acute illnesses and injuries. This scope will include routine primary care, exclusive of wellness services, and the treatment of non-life threatening injuries. Urgent care services will be capable of providing transport for patients requiring EMT and/or ACLS qualified attendants. *(Note: the team feels that some mechanism must be defined for accepting non-emergent patients via ambulance for post [i.e. Ft Huachuca Fire Department] only. Examples of these patients are those requiring routine rehydration or orthopedic treatment.)*

Limits to Care Provided

While equipment is maintained to deal with emergency problems (such as crash carts, suction apparatus, nubulizers, etc.), patients with potential for rapid deterioration are referred to emergency departments. Examples of these patients include chest pain of cardiac nature, severe dyspnea, fractures, and complex lacerations. In general, the urgent care service will not solicit patients with life or limb threatening conditions or patients requiring ***emergency*** ambulance transport into the facility.

Access to Care

Urgent care will be practiced according to patient demand. Access will be through appointment or triage only. Appointments will be made by calling the appropriate telephone numbers during the hours of operation. The appointment will be made within the TRICARE standards of access and appointment waiting times for acute visits. Triage is done in two venues, for those patients who call an advice/triage line and for those patients who present as walk-ins. Both groups will be screened by qualified personnel for acquity and severity of illness/injury and directed to an emergency department, their proper clinic for appointing, or the urgent care service as medically indicated and within the TRICARE standards for access to care. Patients will be directed back to their appropriate source of routine care (PCM) for follow-up.

Staff Support Required

Practitioners consist of physicians (MD or DO), nurse practitioners, and physicians assistants. Registered nurses, licensed practical nurses, and Army medics are in support. Active triage of patients is critical. Receptionist/medical clerks assist the patient flow. Laboratory and radiology assistance is available. Staffing requirements and patterns are driven by patient demand, number of practitioners, procedures performed, and historical data. Administration assures that all personnel work within the scope of their privileges and job descriptions. Ongoing training is provided to support the scope and mission.

Standards and Guidelines Utilized

Practice will be governed by the facility's medical rules, regulations, and bylaws, and by guidelines set forth by the American Academy of Family Practitioners, the American College of Emergency Physicians, the American Academy of Pediatricians, and the American Nurses Association Standards of Practice and Standards of Ambulatory Practice.

Method for Assessing Adequacy of Health Care Services

Patients are interviewed and examined, so that subjective and objective data are obtained. Diagnostic studies such as laboratory tests and roentgenograms are obtained at the practitioner's discretion. Interventions are based on accumulated subjective and objective data. Appropriate patient education is executed. Referrals and consultations are obtained through health care finders or other designated mechanisms. Health care finders will then coordinate any necessary referrals with the patient's primary care managers controlling and monitoring the process.

Ambulatory Procedure Services

Scope of Services

(A product of the Ambulatory Procedure Services Reengineering Team)

General Description of Scope and Mission

The surgery center and clinics will provide routine ambulatory surgery and endoscopy for general, orthopedic, ENT, urologic, and gynocologic surgery. Care will be provided for all TRICARE Prime enrollees and for other eligible beneficiaries on a space available basis.

Age Specific Patients Served

Ambulatory surgical care will be available for all age categories of patients, but will be provided within the scope of the individual specialty surgical providers.

Scope and Complexity of Patient Care

Surgical care will be generally limited to ASA levels I and II. ASA level III patients may be accepted if they are stable after evaluation. ASA "E" level patients will be accepted as appropriate. All procedures will require less that 24 hours of post operative care. Examples of surgical care are as follows:

General Surgery	Orthopedics	Otorhinolaryngology
appendectomy	joint arthroscopy	tonsillectomy and adenoidectomy
cholesytectomy	ganglion cyst removal	PE tubes
hernia repair	anterior crutiate ligament repair	septoplasty
breast biopsy		rhinoplasty
axillary resection		
mastectomy	Urology	Gyneocologic
endoscopy (includes Internists)	circumcision	tubal ligation
	cystoscopy	D&C conitization

Endoscopy
colonoscopy
sigmoidoscopy

(The team recommends bringing oral surgery from the DENTAC into the service to reduce staffing redundancies [CMS, anesthesia, etc.])

Limits to Care Provided

Surgical candidates likely to require greater than 24 hour post operative care will be transferred via appropriate ambulance services for care at an inpatient hospital (i.e. Sierra Vista Community Hospital or University Medical Center).

Access to Care

Access to surgical care will be by referral from primary care managers (and urgent care providers by exception), through the TRICARE health care finders, to the appropriate surgical specialty providers.

Staff Support Required

The service will utilize two operating rooms, a minimum of four recovery room beds, a minimum of four post operative observation beds capable of 24 hour monitoring (two rooms and separate for recovery and general observation), and six same day surgery recovery beds/chairs for minor procedure recovery. The service will also require anatomic pathology, blood bank, dietary, and sterile supply support. Orthopedic surgery will require cast clinic support and access to physical therapy and rehabilitation.

Standards and Guidelines Utilized

Practice will be governed by the facility's medical rules, regulations, and bylaws, and by guidelines set forth by the requisite surgical colleges and academies of the credentialed surgeons and the American Nurses Association Standards of Practice and Standards of Ambulatory Practice.

Method for Assessing Adequacy of Health Care Services

Patients are interviewed and examined, so that subjective and objective data are obtained. Diagnostic studies such as laboratory tests and roentgenograms are obtained at the practitioner's discretion. Interventions are based on accumulated subjective and objective data. Appropriate patient education is executed. Referrals and consultations are obtained through health care finders or other designated mechanisms. Health care finders will then coordinate any necessary referrals with the patient's primary care managers controlling and monitoring the process.

Appendix C

Reengineering Team

Business Cases

Primary Care

Business Case

(A product of the Primary Care Reengineering Team)

Raymond W. Bliss Army Community Hospital (RWBACH) has identified Primary Care as a core process of the organization. This business case presents a summary of the cost of providing primary care at RWBACH according to the newly developed scope developed by the Primary Care Reengineering Team. The tasks of this business case are to present a general cost and demand analysis of the core process, review any projected impacts on the TRICARE managed care support contract, and detail any projected shift in supplemental care costs based on the new scope of care.

COST AND DEMAND ANALYSIS

The cost and demand of primary care were analyzed using MEPRS data extracted from the MEQS database. Primary care is delivered in three clinics at RWBACH; Community Care Clinics 1, 2, and 3. The expenses for each of these clinics was analyzed for the 12 month period of January 1996 through December of 1996. Total expenses reflect the direct costs of each clinic, the attributed ancillary costs of each clinic, and the allocated support costs of each clinic. Demand is estimated based on clinic workload reported in the MEPRS system for the same period of time. The costs and demand of each clinic are summarized in table 1 below.

RWBACH Primary Care Cost and Demand Summary

MEPRS Code	Clinic Name	Visits	Expenses	Cost/Visit	Average Daily Visits
BHAA	Community Care Clinic #3	10388	$ 1,745,314	$ 168	42
BHAB	Community Care Clinic #1	29011	$ 3,250,959	$ 112	116
BHAC	Community Care Clinic #2	18288	$ 2,754,049	$ 151	73
BHAP	Primary Care Partnership (CCC #3)	5498	$ 551,096	$ 100	22
BHAS	Primary Care APN Partnership (CCC #2)	721	$ 50,555	$ 70	3
	Totals:	63906	$ 8,351,973	$ 131	256

Table 1

Primary care is considered the core business of RWBACH and thus is not considered as a potential function to eliminate. However, the demand for service and cost effectiveness of delivering these services was compared to get a baseline of how our services compare to other primary care services in the Army.

The costs and service demand for each of these clinics was compared to clinics at several similarly sized Army hospitals. The clinics at Redstone Arsenal, Fort Monmouth, and Fort Leavenworth were selected for this comparison. The all three CCC's at RWBACH provide health care to both active duty patients and their family members. Additionally, CCC #3 provides care to retired service members and their family members. Because of the diversity of patient populations served, the CCC's were not compared with basic troop medical clinics, but rather similar primary care centers. A summary of this comparison is presented at table 2 shown below.

Comparison Clinic Cost and Demand Analysis

MEPRS Code	Clinic Name	Visits	Expenses	Cost/Visit	Average Daily Visits
BHAA	Redstone Primary Care Clinic	7847	$1,159,902	$ 148	31
BHAA	Monmouth Primary Care Clinic	4556	$ 703,365	$ 154	18
BHAA	Leavenworth Primary Care Clinic	7994	$ 904,542	$ 113	32
	Totals/Averages	20397	$2,767,809	$ 136	27
BHA	Huachuca Primary Care	63906	$8,351,973	$ 131	NA

Table 2

The results of this comparison show that the overall cost per visit of primary care at RWBACH is comparable to the clinics at similarly sized hospitals. Further, this analysis shows that the demand for primary care in any of the three clinics at RWBACH is far in greater than that of similar sized hospitals. The result may be the opportunity for significant efficiencies to be found in the reengineering process.

TRICARE MANAGED CARE SUPPORT (MCS) CONTRACT IMPACTS

The main impact on the TRICARE MCS contract is that the primary care system at RWBACH is being reengineered with the intent to continue providing all of the primary care demanded by Prime Enrollees in the RWBACH catchment area. The extent to which space will be available for the provision of primary care to non-prime enrolled CHAMPUS eligibles will depend on the availability of out-year funding and the impact of proposed enrollment based capitation.

SUPPLEMENTAL CARE COST SHIFTING

Supplemental care costs are primarily incurred when active duty patients must receive care in the civilian health care market. It is the intent of the primary care reengineering effort to not shift care into the civilian market and increase supplemental care costs.

URGENT CARE

Business Case

(A product of the Urgent Care Reengineering Team)

Raymond W. Bliss Army Community Hospital (RWBACH) is projecting the conversion of the current Level II Emergency Department (ED) (Level II by Arizona Rural Hospital Standards), to an Urgent Care Clinic (UCC). This business case presents a summary of the cost of providing urgent care at RWBACH according to the newly developed scope of practice prepared by the Urgent Care Reengineering Team. The purpose of this business case is to determine the extent to which the process can be executed within the budget limitations. The case includes a general cost analysis, a service demand analysis, the projected impact on the TRICARE managed care support contract, and the projected impact on supplemental care costs based on the new scope of care.

COST AND DEMAND ANALYSIS

The cost and demand of urgent care were analyzed using the Medical Expense Performance Reporting System (MEPRS) Summary Report Step-down Analysis for the Emergency Department for Fiscal Year (FY) 1996. Total expenses reflect the direct cost of the ED, the attributed ancillary costs of the allocated support costs. Demand is estimated based on clinic workload reported in the MEPRS System for this period of time.

The historical cost and demand figures for the emergency department are displayed in ***enclosure 1***. These figures represent the expenses and workload of a 24 hour, 7 day per week, emergency department (ED). The medical staff in the ED is largely provided through a Direct Health Care Provider (DHCP) contract with a group named National Emergency Services (NES). The cost of this contract is reflected in the direct expense portion of the worksheet. The remainder of the expenses are presented along with a summary of the total annual visits, cost per visit, and average visits per day. In summary, the historical cost was $ 3,922,265 for 22,921 visits (63 per day), at an average cost of $160 per visit.

The projected cost of Urgent Care Clinic (UCC) operations is presented under two options. The first option represents the projected cost and demand for UCC operations for 16 hours per day. The operations would be in accordance with the scope defined for the straight UCC. These figures are provided in ***enclosure 2***. The demand for this option is curtailed by the historical percentage of workload seen during the third shift (2300-0700 hours). Approximately 5% of the historical workload is seen during that time. The 5% reduction was applied to the all supply expenses and most ancillary expenses. The personnel and contract (NES) expenses were reduced by the projected staffing pattern for the new unit and the reduced hours of service respectively. The 1/3 reduction in hours and 5% reduction in workload are projected to result in a core budget savings[1] of $406,680 (32%) and a total savings[2] of $586,995 (16%). In summary, the projected cost is $3,335,270 for 21,775 visits (59 per day), at an average cost of $141 per visit.

The second UCC option represents the combining of staffs with the Ambulatory Procedure Unit (APU), also referred to as Same Day Surgery Unit (SDSU). Only the UCC portion of this operation is reflected in this analysis. The demand and cost analysis is presented in ***enclosure 3***. The concept of operations for this unit is to operate the UCC for 12 hours per day, and co-locate the staff of the APU to allow extended post operative observation of patients by the UCC staff. In this option the contract (NES) is reduced by approximately 50% and the projected workload drop is 20%. The 20% reduction was applied to the all supply expenses and most ancillary expenses. The personnel and contract (NES) expenses were reduced by the projected staffing pattern for the new unit and the reduced hours of service respectively.

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[1] Core budget savings are based on the reduction in direct expenses less military personnel expenses only. Ancillary and support costs are not included.

[2] Total savings are based on projected reductions in all expenses except support cost.

The 1/2 reduction in hours and 20% reduction in workload are projected to result in a core budget savings of $635,831 (50%) and a total savings of $1,177,916 (32%). In summary, the projected cost is $2,744,349 for 18,250 visits (50 per day), at an average cost of $138 per visit.

Converting the Emergency Department to an Urgent Care Clinic will allow us to create a new staffing model and become more cost effective. This staffing model coupled with other recently implemented resource changes (nurse triage), should increase the utilization of our Primary Care Clinics for treatment previously provided in the expensive emergency room setting. The projected impact of this conversion is that the overall cost per visit in the urgent care at RWBACH will be reduced by redesigning its staff. The desired outcome for patient care is to establish a more integrated health care system, with better access for beneficiaries, and a decrease in low acuity population in the urgent care.

TRICARE MANAGED CARE SUPPORT (MCS) CONTRACT IMPACTS

The urgent care clinic at RWBACH is being reengineered with the intent to provide improved access to the Prime Enrollees in the RWBACH catchment area. The only identifiable cost to the beneficiary will be those instances where the beneficiary seeks emergency care at the civilian provider. Under the present process the Emergency Department is the "safety valve" or as the historical data documents, the outpatient "clinic of convenience" for many of our beneficiaries. The proposed UCC will serve as the safety valve for urgent or acute health care problems allowing the other outpatient clinics to focus on the majority of primary care needs for Prime Enrollees.

SUPPLEMENTAL CARE COST SHIFTING

Supplemental care costs are primarily incurred when active duty patients must receive care in the civilian health care market. It is the intent of the urgent care reengineering effort to minimize the shift of care into the civilian market. The reduction of services from an emergency room to an urgent care center is likely to result in a small increase in supplemental care expense. However, supplemental care dollars have historically been expended on non-active duty patients who are not disengaged and require some type of diagnostic care (generally CT or MRI) in the civilian market. The reduction of services from an emergency room to an urgent care center is likely to result in an elimination of all of these costs. The projected net change in supplemental care costs is difficult to assess, but is likely to be minimal.

Emergency Department Historical Demand and Cost Summary

Raymond W. Bliss Army Community Hospital

Cost Summary

Direct Expense Summary				
Personnel	Civilian	$349,862		
	Military	$678,822		
	NES	$820,153		
Supply		$40,646		
		$52,482		
		$1,290		
Other		$2,963		
		Total Direct Expenses:	$1,946,218	
Ancillary Expense Summary				
Pharmacy		$391,916		
Pathology		$262,481		
Blood Bank		$1,841		
Radiology		$302,464		
EKG		$110		
Pulmonary Function		$52		
Central Material Sterilization		$19,400		
Respiratory Therapy		$4,427		
		Total Ancillary Expenses:	$982,691	
		Support Costs:	$734,013	$734,013
			Total Expenses:	$3,662,922
			Supplemental Care Costs:	$259,343
			GRAND TOTAL:	**$3,922,265**

Demand vs. Cost Summary

FY 1996 Visits	Cost per Visit	Average Visits per Day
22921	$160	63

Emergency Department Projected Demand and Cost Summary

Raymond W. Bliss Army Community Hospital

Cost Summary - 16 Hour Clinic

Direct Expense Summary			% of Historical	
Personnel	Civilian	$221,406	63%	
	Military	$584,149	86%	
	NES	$546,769	67%	
Supply		$38,614	95%	
		$49,858	95%	
		$1,225	95%	
Other		$2,844	96%	
	Total Direct Expenses:		$1,444,865	74%
Ancillary Expense Summary				
Pharmacy		$372,320	95%	
Pathology		$249,357	95%	
Blood Bank		$1,841	100%	
Radiology		$287,341	95%	
EKG		$110	100%	
Pulmonary Function		$0	0%	
Central Material Sterilization		$18,347	95%	
Respiratory Therapy		$4,427	100%	
	Total Ancillary Expenses:		$933,743	95%
	Support Costs:	$697,312	$697,312	
			Total Expenses: $3,075,927	84%
		Supplemental Care Costs:	$259,343	100%
			GRAND TOTAL:	**$3,335,270**

Demand vs. Cost Summary

FY 1996 Visits	% of Historical Visits	Cost per Visit	Average Visits per Day
21775	95%	$141	59

	Core Budget Savings*	Total Expenses**
Projected Savings:	**$406,680**	**$586,995**

* (Historical Direct Costs less Military Personnel Cost) minus (Projected Direct Costs less Military Personnel Cost)

**Grand Total Historical minus Grand Total Projected

Emergency Department Projected Demand and Cost Summary

Raymond W. Bliss Army Community Hospital

Cost Summary - APU and Urgent Care Unit

Direct Expense Summary			% of Historical	
Personnel	Civilian	$165,238	47%	
	Military	$411,420	61%	
	NES	$384,013	47%	
Supply		$34,753	86%	
		$44,873	86%	
		$128	10%	
Other		$2,560	86%	
	Total Direct Expenses:		$1,042,985	54%
Ancillary Expense Summary				
Pharmacy		$335,088	85%	
Pathology		$224,421	85%	
Blood Bank		$1,657	90%	
Radiology		$258,607	86%	
EKG		$99	90%	
Pulmonary Function		$0	0%	
Central Material Sterilization		$16,512	85%	
Respiratory Therapy		$3,984	90%	
	Total Ancillary Expenses:		$840,368	86%
	Support Costs:	$627,581	$627,581	
			Total Expenses: $2,510,940	69%
		Supplemental Care Costs:	$233,409	90%
			GRAND TOTAL:	**$2,744,349**

Demand vs. Cost Summary

FY 1996 Visits	% of Historical Visits	Cost per Visit	Average Visits per Day
18250	80%	$138	50

	Core Budget Savings*	Total Expenses**
Projected Savings:	**$635,831**	**$1,177,916**

* (Historical Direct Costs less Military Personnel Cost) minus (Projected Direct Costs less Military Personnel Cost)

**Grand Total Historical minus Grand Total Projected

Ambulatory Procedure Services

Business Case

(Written by CPT John E. Kent)

Raymond W. Bliss Army Community Hospital (RWBACH) has identified Ambulatory Procedure Services as a core process of the organization. This business case presents a summary of the resource impacts of providing ambulatory procedure services at RWBACH. The impacts are based on the scope developed by the Ambulatory Procedure Services Reengineering Team. The tasks of this business case are to present a general demand and cost analysis of the core process, review any projected impacts on the TRICARE managed care support contract, and detail any projected shift in supplemental care costs based on the new scope of care.

DEMAND AND COST ANALYSIS

The primary demand and cost for Ambulatory Procedure Services ar· for procedures performed in the operating room as opposed to the clinic or scope room. As such, the anal .s of and resulting decision to provide these services long term will revolve around this area. However, in order to provide complete data and establish a baseline for clinic operations associated with Ambulatory Procedure Services, the clinics' demands and costs were determined. These data are presented at ***enclosure 1.***

The demand for Ambulatory Procedure Services were analyzed using Retrospective Case Mix Analysis System (RCMAS) data from fiscal year 1996. Demand was estimated using inpatient workload reported for the period less those cases determined by each service chief as being beyond the capability of an ambulatory surgery setting. These services were delivered by seven Medical Expense and Performance Reporting System (MEPRS) clinics at RWBACH; General Surgery (ABAA) and General Surgery Partnership (ABAP), Oral Surgery (ABFA), ENT Partnership (ABGP), Urology Partnership (ABKP), Gynecology Partnership (ACAP), and Orthopedics (AEAA) and Orthopedics Partnership (AEAP). The expenses recorded in MEPRS for each of these clinics were extracted for fiscal year 1996. These expenses were adjusted based on the projected demand for each service. The result was a proxy cost of providing the operating room portion of ambulatory procedure services. The process for demand and cost analysis are detailed below.

Demand for Ambulatory Procedure Services

The data systems necessary for a direct demand analysis of Ambulatory Procedure Services for fiscal year (FY)1996 Services were not available and are very limited for the current FY (1997). As a result, inpatient workload from FY 1996 was used as a proxy for this analysis.

The demand analysis began by extracting all surgical admissions with a length of stay of two days or less from the Retrospective Case Mix Analysis System (RCMAS). This report returned 1105 total admissions. The MEPRS recorded 1115 admissions for the same time period. This indicates that in excess of 99% of the admissions recorded were for two days or less.

The admissions were sorted by admitting service and reviewed by each service chief. The service chiefs classified each case into one of three categories:

(1) Same Day - able to release patients the same calendar day as the procedure
(2) Observation (Overnight)- requires overnight postoperative recovery, but able to release patient within 23 hours and 59 minutes of "admission"
(3) Non-Ambulatory - requiring greater than 24 hours of post operative care

The listings of demand for Same Day plus Overnight and Same Day Only are provided at ***enclosures 2 and 3.***

There are limitations to using the inpatient data for this analysis. First, it assumes that each of the admissions resulted in a surgical case. While this is not exactly correct, it is felt that a very high percentage did result in the performance of a surgical procedure. Furthermore, a more accurate measure is not currently available for estimating this workload. A second limitation is that inpatient admissions are assigned a single Diagnosis Related Grouping (DRG) code but may well have more than one procedure performed during the admission. This is not generally the rule for this facility because the acuity of patients admitted is fairly low. The result of this limitation is that the estimate is likely on the low side resulting it a conservative estimate of projected procedures (if each procedure could be easily tracked, the result would be a higher number of procedures and a correspondingly lower cost per procedure).

Cost for Ambulatory Procedure Services

A cost analysis of Ambulatory Procedure Services was also performed using FY 96 data. The analysis was done using inpatient surgical expense data from the Medical Expense and Performance Reporting System (MEPRS). There are also limitations to using inpatient cost data for this analysis. It does not exactly mirror the expense allocation process for ambulatory procedure services. It also cannot directly measure the changes in ancillary and direct costs. However, as with the demand analysis, no more accurate measure is currently available for estimating these costs. Because of the lack of direct correlation between the inpatient data used and the actual ambulatory data, conservative figures are used throughout the analysis.

The Region 7 - Desert States TRICARE Region Financial Guide (January 1997) provides a methodology for determining the average cost of individual admissions based on Diagnosis Related Groupings (DRGs). This methodology requires determining the "hospital cost" of each service (total expenses less clinician salaries). The "hospital cost" is then compared with workload related data for the facility to determine the average cost for various admissions.

The cost analysis began with compiling the MEPRS expense data for each of the services. These figures were used as a baseline. The Historical Cost of Inpatient Surgical Operations is provided as ***enclosure 4***. The total expense of these operations was $3,740,918. The data indicated that the inpatient "hospital cost" of surgical services was $3,702,673. This figure is then divided by the total Relative Workload Product[3] (RWP) generated by the services. The total RWP was extracted from RCMAS, and is presented along with the cost per RWP for each individual surgical service, in ***enclosure 4***. The final calculation to estimate the cost per DRG is done by multiplying the cost per RWP by the mean RWP assigned to each DRG (assigned by RCMAS).

The historical costs were then adjusted for the projected demand explained above. Costs were adjusted by reducing the appropriate direct, ancillary, and other support by the percentage drop in workload (demand) projected. Projected Cost of Same Day plus Overnight Stay Surgical Operations and Same Day Only Surgical Operations are provided at ***enclosure 5***.

For the Same Day plus Overnight Stay Surgical Operations, only ancillary costs were adjusted based on the projected demand. An additional savings can be expected from the reduction in expenses received from the ward "cost pool." The ward cost pool is a collection of the expenses incurred on the ward when patients are admitted. An analysis of these costs indicates that a significant amount of money may be saved in direct expenses of the ward. Some of these savings may be transferred to ancillary services such as Same Day Surgery (DGAA), but the savings should still be significant. The surgical services received approximately 48% of the ward cost pool expenses in FY 96. The direct care portion of

[3] Relative Workload Product (RWP) is a workload and resource allocation measure that quantifies relative resource consumption. The RWP factor establishes the relative resource intensity of a particular admission in relation to others. For example, an admission for a DRG with an average RWP of 1.0 requires twice the resources as an admission for a DRG with an average RWP of 0.5.

the ward cost pool is summarized below in table 1. The bulk of these expenses are in personnel costs. The majority of the personnel expenses are not expected to continue to contribute expenses to the ambulatory surgical services.

Service	Financial	Personnel	Manual	Total
Ward 2 Cost Pool	$77,531	$840,955		$918,486

Table 1.

The potential contribution eliminated from the ambulatory surgery expense is approximately $442,000 for the direct expense alone. Support costs (allocated based on FTEs and square footage in the work center) may contribute an additional $230,000 in reduced expenses, but are difficult to track in the accounting system. These figures represent the elimination of expenses contributed by the use of 48.15% of the performance factor of former bed days on the ward. The savings generated in Ward 2 Cost Pool Expenses will be defined based on the final configuration of the observation unit.

The entire expense of the Ward 2 Cost Pool was eliminated from the Same Day Only Surgical Operations projection. An estimate of the change in direct and support costs and a more refined projection of ancillary costs will also be completed following the process reengineering phase of the project.

In summary, savings in ancillary services and ward personnel expenses are expected to reduce the overall cost of surgical services by a minimum of ***$275,145*** and ***$1,470,528*** before the effects of process reengineering for Same Day plus Overnight and Same Day Only respectively.

TRICARE MANAGED CARE SUPPORT (MCS) CONTRACT IMPACTS

The impact of Ambulatory Procedure Services on the TRICARE Managed Care Support Contract involves the maintenance of Resource Sharing Agreements and the potential Bid Price Adjustment impact of shifting care to the contractor.

The impact on resource sharing may be significant considering that the vast majority of the resource sharing agreements are in surgical specialties. From the standpoint of surgical workload, the former partnership agreements accounted for 42% of the surgical admissions and 40% of the RWP generated. While the gross numbers drop, the percentages remain around 40% in both the Ambulatory Surgery with Overnight Post Operative Care and Same Day Only options. Obviously there is no surgical workload if ambulatory surgical services are completely discontinued.

The impact of changes in ambulatory surgical services on the MCSC bid price readjustment are difficult to quantify. Although the actual bid price adjustment will be based on the shift in health care delivery sites for the entire region, the potential cost can be estimated using the rates negotiated by the contractor for this care and the numbers projected to be shifted to their network. ***Due to the proprietary nature of the negotiated rates the contractor has received, the costs will not be presented in this report.***

SUPPLEMENTAL CARE COST SHIFTING

Supplemental care costs are primarily incurred when active duty patients must receive care in the civilian health care market. The cost of this shift depends on the final scope of ambulatory surgical services provided. A list of admissions by DRG was developed for three possible alternatives:

1. Ambulatory Surgery with Overnight Post Operative Care
2. Ambulatory Surgery Without Overnight Post Operative Care
3. No Ambulatory Surgery

These lists are provided at ***enclosure 6.*** The cost of this shift will depend on the amount of these cases actually shifted to civilian providers and those shifted to other military medical treatment facilities. The final estimate will be determined based on the alternative selected.

Surgical Clinic Costs and Demand

Fiscal Year 1997 - MEPRS Data

MEPRS Code	Clinic	Direct Personnel	Direct Financial	Direct Other	Ancillary	Support	Cost Pools	Total Expense	Total Visits	Cost per Visit
BBAA	General Surgery	$ 76,057		$ 5,308	$ 240,163	$ 87,528	$ 225,191	$ 634,247	4055	$ 156
BBAP	General Surgery Partner	$ 1,869			$ 44,357	$ 8,517	$ 52,556	$ 107,299	946	$ 113
BBFP	ENT Partner	$ 1,315		$ 107	$ 12,342	$ 6,276	$ 43,068	$ 63,108	699	$ 90
BBIP	Urology Partner	$ 2,884		$ 4,546	$ 32,351	$ 9,414	$ 40,712	$ 89,907	733	$ 123
BCBP	GYN Partner	$ -	$ -	$ -	$ 45,750	$ 3,223	$ 8,526	$ 57,500	282	$ 204
BEAA	Orthopedics	$ 71,765		$ 18,171	$ 79,467	$ 41,725	$ 200,305	$ 411,433	3425	$ 120
BEAP	Orthopedics Partner	$ -	$ -	$ -	$ 81,918	$ 20,493	$ 127,844	$ 230,255	2186	$ 105
								$ 1,593,749		

Ambulatory Surgical Operations - Same Day and Overnight

By Service Cost per DRG

Surgical Service Totals	
Total Cost:	$3,427,923
Total RWP:	767.96
Ave. Cost/RWP:	$4,464

Service: **General Surgery**
Code: **ABAA**
Service Hospital Cost: $1,492,089
Base Cost Per RWP: $5,713

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	008	Periph & Cranial Nerve & other Nerve Syst. Proc. w/o CC	1.0963	$6,263	1	1.0963	$6,263
SD	041	Extraocular Procedures except Orbit	0.7171	$4,097	1	0.7171	$4,097
SD	047	Other Disorders of the Eye w/o CC	0.4133	$2,361	1	0.4133	$2,361
SD	119	Vein Ligation & Stripping	1.2220	$6,982	5	6.1100	$34,908
OBS	148	Major Large and Small Bowel Procedures w/ CC	3.2536	$18,589	1	3.2536	$18,589
OBS	149	Major Large and Small Bowel Procedures w/o CC	1.6134	$9,218	1	1.6134	$9,218
OBS	150	Peritoneal Adhesiolysis w/ CC	2.8092	$16,050	2	5.6184	$32,099
OBS	151	Peritoneal Adhesiolysis w/o CC	1.2731	$7,274	6	7.6386	$43,641
SD/OBS	153	Minor Small and Large Bowel Proc. w/o CC	1.1953	$6,829	1	1.1953	$6,829
SD	155	Stomach, Esoph., and Duodenal Proc. Age >17 w/o CC	1.5655	$8,944	3	4.6965	$26,832
SD	157	Anal and Stomal Proc w/ CC	1.2046	$6,882	1	1.2046	$6,882
SD	158	Anal and Stomal Proc w/o CC	0.6564	$3,750	27	17.7228	$101,255
SD	159	Hernia Proc. except Inguinal & Femoral Age> 17 w/ CC	1.3745	$7,853	1	1.3745	$7,853
SD	160	Hernia Proc. except Inguinal & Femoral Age> 17 w/o CC	0.8730	$4,988	16	13.9680	$79,803
SD	161	Inguinal & Femoral Hernia Age >17 w/ CC	1.0233	$5,846	3	3.0699	$17,539
SD	162	Inguinal & Femoral Hernia Age >17 w/o CC	0.8054	$4,601	34	27.3836	$156,450
SD	163	Hernia Proceduress Age 0-17	0.5406	$3,089	4	2.1624	$12,354
OBS	165	Appendectomy w/ Complicated Princ. Dx w/o CC	1.2215	$6,979	2	2.4430	$13,957
OBS	166	Appendectomy w/o Complicated Princ. Dx w CC	1.0792	$6,166	1	1.0792	$6,166
OBS	167	Appendectomy w/o Complicated Princ. Dx w/o CC	0.7488	$4,278	11	8.2368	$47,059
SD	169	Mounth Proc. w/o CC	0.8826	$5,043	1	0.8826	$5,043
OBS	182	Esophagitis, Gastroent., & Misc. Digest. Disord. Age>17	0.7222	$4,126	2	1.4444	$8,252
OBS	183	Esophagitis, Gastroent., & Misc. Digest. Disord. Age>17	0.5473	$3,127	14	7.6622	$43,776
OBS	184	Esophagitis, Gastroent., & Misc. Digest. Disord. Age 0-17	0.3207	$1,832	3	0.9621	$5,497
SD	188	Other Digestive System Dx. Age > 17 w/ CC	1.0596	$6,054	2	2.1192	$12,108
SD	189	Other Digestive System Dx. Age > 17 w/o CC	0.5934	$3,390	5	2.9670	$16,951
SD	190	Other Digestive System Dx. Age 0-17	0.4515	$2,580	2	0.9030	$5,159
SD	198	Total Cholecystectomy w/o CDE w/o CC	1.2891	$7,365	1	1.2891	$7,365
SD	217	Wnd Debrid. & Skin Graft Exc Hand, for Musculoskel. & (	2.9101	$16,626	1	2.9101	$16,626
SD	227	Soft Tissue Proc. w/o CC	0.8634	$4,933	2	1.7268	$9,866
SD	229	Hand or Wroist Proc., except Major Joint Proc. w/o CC	0.7828	$4,472	3	2.3484	$13,417
SD	257	Total Mastectomy for Malignancy w/ CC	1.2233	$6,989	1	1.2233	$6,989
SD	260	Subtotal Mastectomy for Malignancy w/o CC	0.7646	$4,368	4	3.0584	$17,473
SD	261	Breast Proc. for Nonmalignancy except biopsy and local (	1.1646	$6,654	1	1.1646	$6,654
SD	262	Breast biopsy & local excision for non-malignancy	0.7115	$4,065	30	21.3450	$121,950
SD	266	Skin graft and/or debrid. except for skinn ulcer or cellulitis	1.1838	$6,763	3	3.5514	$20,290
SD	267	Perianal & Pilonidal Proc.	0.8368	$4,781	8	6.6944	$38,247
SD	270	Other skin, subcut. tissue, & breast OR Proc w/o CC	0.7568	$4,324	11	8.3248	$47,562
SD	275	Malignant Breast Disord. w/o CC	0.4845	$2,768	1	0.4845	$2,768
SD	276	Nonmalignant Breast Disord.	0.5028	$2,873	1	0.5028	$2,873
OBS	278	Cellulitis age > 17 w/o CC	0.5712	$3,263	3	1.7136	$9,790
SD	281	Trauma to the skin, subcut. Tissue & Breast Age >17	1.2294	$7,024	2	2.4588	$14,048
SD	282	Trauma to the skin, subcut. Tissue & Breast Age 0-17	0.6146	$3,511	1	0.6146	$3,511
SD	284	Minor skin disord. w/o CC	0.4042	$2,309	2	0.8084	$4,619
SD	289	Parathyroid Proc.	0.9554	$5,458	1	0.9554	$5,458
SD	290	Thyroid Proc.	0.9362	$5,349	3	2.8086	$16,046
SD	291	Thyroglossal Proc	0.4657	$2,661	2	0.9314	$5,321
OBS	324	Urinary Stones w/o CC	0.3804	$2,173	3	1.1412	$6,520
SD	339	Testes Proc. non-malignancy age > 17	0.8587	$4,906	2	1.7174	$9,812
SD	340	Testes Proc. non-malignancy age 0-17	0.5786	$3,306	2	1.1572	$6,611
SD	341	Penis Proc.	1.3397	$7,654	2	2.6794	$15,308
SD	342	Circumcision age > 17	0.7360	$4,205	7	5.1520	$29,435
SD	343	Circumcision age 0-17	0.1479	$845	2	0.2958	$1,690
OBS	350	Inflammation of male reproductive system	0.5787	$3,306	3	1.7361	$9,919
SD	351	Sterilization, Male	0.2271	$1,297	2	0.4542	$2,595
SD	356	Female reproductive system reconstruction procedures	0.8546	$4,883	1	0.8546	$4,883
SD	362	Endoscopic tubal interruption	0.2902	$1,658	21	6.0942	$34,818
SD/OBS	415	OR proc. for infectious & parasitic disease	3.4175	$19,525	1	3.4175	$19,525
OBS	418	Post-op & Post traumatic infections	0.8216	$4,694	2	1.6432	$9,388
SD	443	Other OR proc. for injuries w/o CC	0.9935	$5,676	1	0.9935	$5,676
OBS	444	Traumatic injury age > 17 w/ CC	0.7614	$4,350	1	0.7614	$4,350
OBS	445	Traumatic injury age > 17 w/o CC	0.5071	$2,897	1	0.5071	$2,897
SD	459	Non-extensive burns w/ wound debrid. or other OR Proc.	2.5400	$14,512	1	2.5400	$14,512
SD	477	Non-extensive OR proc. unrelated to Princ. Dx.	1.3771	$7,868	1	1.3771	$7,868
SD	493	Laproscopic Cholecystectomy w/ CDE w/ C.C	1.6124	$9,212	3	4.8372	$27,636
SD	494	Laproscopic Cholecystectomy w/o CDE or C.C	1.1054	$6,315	28	30.9512	$176,832
		General Surgery Subtotal:			316	261.1625	$1,492,089

Service: **General Surgery Partnership**
Code: **ABAA**
Service Hospital Cost: $254,006
Base Cost Per RWP: $3,210

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	037	Orbital Procedures	0.8662	$2,780	1	0.8662	$2,780
SD	119	Vein Ligation & Stripping	1.2220	$3,922	2	2.4440	$7,845
OBS	150	Peritoneal Adhesiolysis w/ CC	2.8092	$9,017	1	2.8092	$9,017
OBS	151	Peritoneal Adhesiolysis w/o CC	1.2731	$4,086	1	1.2731	$4,086
SD	155	Stomach, Esoph., and Duodenal Proc. Age >17 w/o CC	1.5655	$5,025	1	1.5655	$5,025
SD	158	Anal and Stomal Proc w/o CC	0.6564	$2,107	4	2.6256	$8,427
SD	159	Hernia Proc. except Inguinal & Femoral Age> 17 w/ CC	1.3745	$4,412	1	1.3745	$4,412
SD	160	Hernia Proc. except Inguinal & Femoral Age> 17 w/o CC	0.8730	$2,802	6	5.2380	$16,812
SD	161	Inguinal & Femoral Hernia Age >17 w/ CC	1.0233	$3,284	1	1.0233	$3,284
SD	162	Inguinal & Femoral Hernia Age >17 w/o CC	0.8054	$2,585	6	4.8324	$15,511
SD	163	Hernia Proceduress Age 0-17	0.5405	$1,735	3	1.6218	$5,205
OBS	165	Appendectomy w/ Complicated Princ. Dx w/o CC	1.2215	$3,921	1	1.2215	$3,921
OBS	166	Appendectomy w/o Complicated Princ. Dx w CC	1.0792	$3,464	1	1.0792	$3,464
OBS	167	Appendectomy w/o Complicated Princ. Dx w/o CC	0.7488	$2,403	2	1.4976	$4,807
OBS	183	Esophagitis, Gastroent., & Misc. Digest. Disord. Age>17	0.5473	$1,757	4	2.1892	$7,027
OBS	184	Esophagitis, Gastroent., & Misc. Digest. Disord. Age 0-17	0.3207	$1,029	1	0.3207	$1,029
SD	198	Total Cholecystectomy w/o CDE w/o CC	1.2891	$4,138	1	1.2891	$4,138
SD	229	Hand or Wroist Proc., except Major Joint Proc. w/o CC	0.7828	$2,513	2	1.5656	$5,025
SD	257	Total Mastectomy for Malignancy w/ CC	1.2233	$3,926	1	1.2233	$3,926
SD	258	Total mastectomy for malignancy w/o CC	0.9917	$3,183	1	0.9917	$3,183
SD	259	Subtotal mastectomy for malignancy w/ CC	0.9040	$2,902	1	0.9040	$2,902
SD	260	Subtotal Mastectomy for Malignancy w/o CC	0.7646	$2,454	4	3.0584	$9,817
SD	262	Breast biopsy & local excision for non-malignancy	0.7115	$2,284	25	17.7875	$57,093
SD	276	Nonmalignant Breast Disord.	0.5028	$1,614	1	0.5028	$1,614
OBS	278	Cellulitis age > 17 w/o CC	0.5712	$1,833	2	1.1424	$3,667
SD	284	Minor skin disord. w/o CC	0.4042	$1,297	3	1.2126	$3,892
SD	340	Testes Proc. non-malignancy age 0-17	0.5786	$1,857	1	0.5786	$1,857
SD	343	Circumcision age 0-17	0.1479	$475	1	0.1479	$475
SD	362	Endoscopic tubal interruption	0.2902	$931	5	1.4510	$4,657
SD	453	Complications of Tx. w/o CC	0.4229	$1,357	1	0.4229	$1,357
SD	493	Laproscopic Cholecystectomy w/ CDE w/ C.C	1.6124	$5,175	1	1.6124	$5,175
SD	494	Laproscopic Cholecystectomy w/o CDE or C.C	1.1054	$3,548	12	13.2648	$42,576
		General Surgery Partnership Subtotal:			98	79.1368	**$254,006**

Service: **Oral Surgery**
Code: **ABFA**
Service Hospital Cost: $3,923
Base Cost Per RWP: $1,212

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	187	Dental Extractions & Restorations	0.6473	$785	5	3.2365	$3,923
		Oral Surgery Subtotal:			5	3.2365	$3,923

Service: **ENT Partnership**
Code: **ABGP**
Service Hospital Cost: $75,187
Base Cost Per RWP: $2,665

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	059	Tonsillectomy &/or adenoidectomy only Age > 17	0.7408	$1,974	2	1.4816	$3,949
SD	060	Tonsillectomy &/or adenoidectomy only Age 0-17	0.4645	$1,238	7	3.2515	$8,666
SD	062	Myringotomy w/ tube insertion age 0-17	0.8189	$2,183	26	21.2914	$56,748
SD	074	Other ear, nose, mouth, & throat, Dx Age 0-17	0.5103	$1,360	2	1.0206	$2,720
SD	186	Dental & oral disease except extractions & restorations A	0.4516	$1,204	1	0.4516	$1,204
SD	467	Other factors influencing health status	0.7140	$1,903	1	0.7140	$1,903
		ENT Partnership Subtotal:			39	28.2107	$75,187

Service: **Urology Partnership**
Code: **ABKP**
Service Hospital Cost: $17,760
Base Cost Per RWP: $2,432

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	270	Other skin, subcut. tissue & breast OR proc. w/o CC	0.7568	$1,841	1	0.7568	$1,841
SD	340	Testes proc., non-malignancy age 0-17	0.5786	$1,407	2	1.1572	$2,815
SD	341	Penis procedures	1.3397	$3,259	2	2.6794	$6,517
SD	343	Circumcision age 0-17	0.1479	$360	9	1.3311	$3,238
SD	477	Non-extensive OR proc. unrelated to principle Dx.	1.3771	$3,350	1	1.3771	$3,350
		Urology Partnership Subtotal:			15	7.3016	$17,760

Service: **Gynecology Partnership**
Code: **ACAP**
Service Hospital Cost: $571,171
Base Cost Per RWP: $7,314

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
OBS	356	Female Reproductive System Recontructive Procedure	0.8546	$6,251	4	3.4184	$25,003
OBS	358	Uterus & Adenexa Proc. for non-malignancy w/ CC	1.1543	$8,443	6	6.9258	$50,657
OBS	359	Uterus & Adenexa Proc. for non-malignancy w/o CC	0.9631	$7,044	45	43.3395	$316,999
SD	360	Vagina, cervics, & vulva procedures	0.9621	$7,037	2	1.9242	$14,074
SD	362	Endoscopic tubal interruption	0.2902	$2,123	24	6.9648	$50,943
SD	364	D&C conitization except for malignancy	0.6706	$4,905	10	6.7060	$49,050
SD	365	Other female reproductive system OR procedures	1.2739	$9,318	1	1.2739	$9,318
SD	378	Ectopic Pregnancy	0.8813	$6,446	1	0.8813	$6,446
SD	381	Abortion w/ D&C aspiration, cutterage, or hysterectomy	0.5085	$3,719	9	4.5765	$33,474
SD	440	Wound debridements for injuries	2.0790	$15,206	1	2.0790	$15,206
		Gynecology Partnership Subtotal:			103	78.0894	$571,171

Service: **Orthopedics**
Code: **AEAA**
Service Hospital Cost: $709,378
Base Cost Per RWP: $3,144

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	006	Carpal tunnel release	0.8124	$2,554	2	1.6248	$5,109
SD	008	Peripheral & Cranial & other nerve system proc. w/o CC	1.0963	$3,447	3	3.2889	$10,341
SD	222	Knee proc. w/o CC	1.1148	$3,505	60	66.8880	$210,318
OBS-ER	223	Major shoulder/elbow proc. or other upper extremity proc.	0.9506	$2,989	12	11.4072	$35,868
SD-ER	224	Shoulder, elbow or forearm proc. except major joint proc.	0.8402	$2,642	8	6.7216	$21,135
SD	225	Foot Procedure	0.9223	$2,900	15	13.8345	$43,500
SD	227	Soft Tissue proc. w/o CC	0.8634	$2,715	5	4.3170	$13,574
SD	229	Hand or wrist proc. except major joint proc. w/o CC	0.7828	$2,461	23	18.0044	$56,612
SD	231	Local excision & removal of internal fixed devices exc. hi	1.1349	$3,568	53	60.1497	$189,130
SD	232	Arthroscopy	0.9105	$2,863	5	4.5525	$14,315
SD	234	Other musculoskel. system & conn. tissue	1.3744	$4,322	6	8.2464	$25,929
SD	247	Signs & symptoms of musculoskel. system & conn tissue	0.6545	$2,058	3	1.9635	$6,174
OBS	248	Tendonitis, myositis, & bursitis	0.6601	$2,076	3	1.9803	$6,227
SD/OBS-EI	252	Fx, sprain, strain, & disloc. of forearm, hand, foot age 0-1	0.3952	$1,243	1	0.3952	$1,243
OBS-ER	253	Fx sprain, strain, disloc. of uparm lowleg except foot Age	2.0023	$6,296	2	4.0046	$12,592
OBS-ER	254	Fx sprain, strain, disloc. of uparm lowleg except foot Age	0.4100	$1,289	7	2.8700	$9,024
OBS	256	Other musculoskel. system & conn. tissue Dx.	0.5939	$1,867	2	1.1878	$3,735
SD	270	Other skin, subcut. tissue & breast OR proc. w/o CC	0.7568	$2,380	8	6.0544	$ .037
OBS-ER	281	Trauma to skin, subcut tissue & breast Age > 17 w/o CC	0.6147	$1,933	2	1.2294	. 366
SB/OBS	477	Non-extensive OR proc. unrelated to principle Dx	1.3771	$4,330	5	6.8855	$2 .650
		Orthopedics Subtotal:			225	225.6057	$709,378

Service: **AEAP**
Code: **Orthopedics Partnership**
Service Hospital Cost: $304,410
Base Cost Per RWP: $1,864

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	006	Carpal tunnel release	0.8124	$1,514	17	13.8108	$25,744
OBS	217	Wound debrid. & skin graft except hand, for	2.9101	$5,425	2	5.8202	$10,849
OBS	219	Lower extrem. & humer. except hip, foot, femur Age >17	1.0947	$2,041	7	7.6629	$14,284
SD	222	Knee proc. w/o CC	1.1148	$2,078	34	37.9032	$70,654
OBS-ER	223	Major shoulder/elbow proc. or other upper extremity proc.	0.9506	$1,772	10	9.5060	$17,720
SD-ER	224	Shoulder, elbow or forearm proc. except major joint proc.	0.8402	$1,566	2	1.6804	$3,132
SD	225	Foot Procedure	0.9223	$1,719	17	15.6791	$29,227
SD	227	Soft Tissue proc. w/o CC	0.8634	$1,609	14	12.0876	$22,532
SD	229	Hand or wrist proc. except major joint proc. w/o CC	0.7828	$1,459	22	17.2216	$32,102
OBS	230	Local excision & removal of internal fixed devices of hip/fe	0.8679	$1,618	1	0.8679	$1,618
SD	231	Local excision & removal of internal fixed devices exc. hi	1.1349	$2,116	19	21.5631	$40,195
SD	232	Arthroscopy	0.9105	$1,697	3	2.7315	$5,092
SD	234	Other musculoskel. system & conn. tissue	1.3744	$2,562	3	4.1232	$7,686
OBS	248	Tendonitis, myositis, & bursitis	0.6601	$1,230	2	1.3202	$2,461
SD/OBS-EI	252	Fx, sprain, strain, & disloc. of forearm, hand, foot age 0-1	0.3952	$737	13	5.1376	$9,577
OBS-ER	254	Fx sprain, strain, disloc. of uparm lowleg except foot Age	0.4100	$764	1	0.4100	$764
OBS	256	Other musculoskel. system & conn. tissue Dx.	0.5939	$1,107	1	0.5939	$1,107
SD	270	Other skin, subcut. tissue & breast OR proc. w/o CC	0.7568	$1,411	1	0.7568	$1,411
OBS-ER	281	Trauma to skin, subcut tissue & breast Age > 17 w/o CC	0.6147	$1,146	2	1.2294	$2,292
SD	284	Minor skin disorders w/o CC	0.4042	$753	3	1.2126	$2,260
SD-ER	443	Other OR proc. for injuries w/o CC	0.9935	$1,852	2	1.9870	$3,704
		Orthopedics Partnership Subtotal:			176	163.3050	$304,410

Ambulatory Surgical Operations - Same Day Only

By Service Cost per DRG

Surgical Service Totals	
Total Cost:	$2,232,541
Total RWP:	687.37
Ave. Cost/RWP:	$3,248

Service: **General Surgery**
Code: **ABAA**
Service Hospital Cost: $973,214
Base Cost Per RWP: $4,554

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	008	Periph & Cranial Nerve & other Nerve Syst. Proc. w/o (	1.0963	$4,992	1	1.0963	$4,992
SD	041	Extraocular Procedures except Orbit	0.7171	$3,266	1	0.7171	$3,266
SD	047	Other Disorders of the Eye w/o CC	0.4133	$1,882	1	0.4133	$1,882
SD	119	Vein Ligation & Stripping	1.2220	$5,565	5	6.1100	$27,825
SD/OBS	153	Minor Small and Large Bowel Proc. w/o CC	1.1953	$5,443	1	1.1953	$5,443
SD	155	Stomach, Esoph., and Duodenal Proc. Age >17 w/o C(	1.5655	$7,129	3	4.6965	$21,388
SD	157	Anal and Stomal Proc w/ CC	1.2046	$5,486	1	1.2046	$5,486
SD	158	Anal and Stomal Proc w/o CC	0.6564	$2,989	27	17.7228	$80,709
SD	159	Hernia Proc. except Inguinal & Femoral Age> 17 w/ C(	1.3745	$6,259	1	1.3745	$6,259
SD	160	Hernia Proc. except Inguinal & Femoral Age> 17 w/o C	0.8730	$3,976	16	13.9680	$63,609
SD	161	Inguinal & Femoral Hernia Age >17 w/ CC	1.0233	$4,660	3	3.0699	$13,980
SD	162	Inguinal & Femoral Hernia Age >17 w/o CC	0.8054	$3,668	34	27.3836	$124,703
SD	163	Hernia Proceduress Age 0-17	0.5406	$2,462	4	2.1624	$9,847
SD	169	Mounth Proc. w/o CC	0.8826	$4,019	1	0.8826	$4,019
SD	188	Other Digestive System Dx. Age > 17 w/ CC	1.0596	$4,825	2	2.1192	$9,651
SD	189	Other Digestive System Dx. Age > 17 w/o CC	0.5934	$2,702	5	2.9670	$13,512
SD	190	Other Digestive System Dx. Age 0-17	0.4515	$2,056	2	0.9030	$4,112
SD	198	Total Cholecystectomy w/o CDE w/o CC	1.2891	$5,870	1	1.2891	$5,870
SD	217	Wnd Debrid. & Skin Graft Exc Hand, for Musculoskel.	2.9101	$13,252	1	2.9101	$13,252
SD	227	Soft Tissue Proc. w/o CC	0.8634	$3,932	2	1.7268	$7,864
SD	229	Hand or Wroist Proc., except Major Joint Proc. w/o CC	0.7828	$3,565	3	2.3484	$10,694
SD	257	Total Mastectomy for Malignancy w/ CC	1.2233	$5,571	1	1.2233	$5,571
SD	260	Subtotal Mastectomy for Malignancy w/o CC	0.7646	$3,482	4	3.0584	$13,928
SD	261	Breast Proc. for Nonmalignancy except biopsy and loc	1.1646	$5,304	1	1.1646	$5,304
SD	262	Breast biopsy & local excision for non-malignancy	0.7115	$3,240	30	21.3450	$97,204
SD	266	Skin graft and/or debrid. except for skinn ulcer or cellul	1.1838	$5,391	3	3.5514	$16,173
SD	267	Perianal & Pilonidal Proc.	0.8368	$3,811	8	6.6944	$30,486
SD	270	Other skin, subcut. tissue, & breast OR Proc w/o CC	0.7568	$3,446	11	8.3248	$37,911
SD	275	Malignant Breast Disord. w/o CC	0.4845	$2,206	1	0.4845	$2,206
SD	276	Nonmalignant Breast Disord.	0.5028	$2,290	1	0.5028	$2,290
SD	281	Trauma to the skin, subcut. Tissue & Breast Age >17	1.2294	$5,599	2	2.4588	$11,197
SD	282	Trauma to the skin, subcut. Tissue & Breast Age 0-17	0.6146	$2,799	1	0.6146	$2,799
SD	284	Minor skin disord. w/o CC	0.4042	$1,841	2	0.8084	$3,681
SD	289	Parathyroid Proc.	0.9554	$4,351	1	0.9554	$4,351
SD	290	Thyroid Proc.	0.9362	$4,263	3	2.8086	$12,790
SD	291	Thyroglossal Proc	0.4657	$2,121	2	0.9314	$4,242
SD	339	Testes Proc. non-malignancy age > 17	0.8587	$3,910	2	1.7174	$7,821
SD	340	Testes Proc. non-malignancy age 0-17	0.5786	$2,635	2	1.1572	$5,270
SD	341	Penis Proc.	1.3397	$6,101	2	2.6794	$12,202
SD	342	Circumcision age > 17	0.7360	$3,352	7	5.1520	$23,462
SD	343	Circumcision age 0-17	0.1479	$674	2	0.2958	$1,347
SD	351	Sterilization, Male	0.2271	$1,034	2	0.4542	$2,068
SD	356	Female reproductive system reconstruction procedures	0.8546	$3,892	1	0.8546	$3,892
SD	362	Endoscopic tubal interruption	0.2902	$1,322	21	6.0942	$27,753
SD/OBS	415	OR proc. for infectious & parasitic disease	3.4175	$15,563	1	3.4175	$15,563
SD	443	Other OR proc. for injuries w/o CC	0.9935	$4,524	1	0.9935	$4,524
SD	459	Non-extensive burns w/ wound debrid. or other OR Pro	2.5400	$11,567	1	2.5400	$11,567
SD	477	Non-extensive OR proc. unrelated to Princ. Dx.	1.3771	$6,271	1	1.3771	$6,271
SD	493	Laproscopic Cholecystectomy w/ CDE w/ C.C	1.6124	$7,343	3	4.8372	$22,028
SD	494	Laproscopic Cholecystectomy w/o CDE or C.C	1.1054	$5,034	28	30.9512	$140,950
		General Surgery Subtotal:			260	213.7082	**$973,214**

Service: **General Surgery Partnership**
Code: **ABAA**
Service Hospital Cost: $199,213
Base Cost Per RWP: $2,947

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	037	Orbital Procedures	0.8662	$2,552	1	0.8662	$2,552
SD	119	Vein Ligation & Stripping	1.2220	$3,601	2	2.4440	$7,202
SD	155	Stomach, Esoph., and Duodenal Proc. Age >17 w/o C(	1.5655	$4,613	1	1.5655	$4,613
SD	158	Anal and Stomal Proc w/o CC	0.6564	$1,934	4	2.6256	$7,737
SD	159	Hernia Proc. except Inguinal & Femoral Age> 17 w/ C(	1.3745	$4,050	1	1.3745	$4,050
SD	160	Hernia Proc. except Inguinal & Femoral Age> 17 w/o C	0.8730	$2,573	6	5.2380	$15,435
SD	161	Inguinal & Femoral Hernia Age >17 w/ CC	1.0233	$3,015	1	1.0233	$3,015
SD	162	Inguinal & Femoral Hernia Age >17 w/o CC	0.8054	$2,373	6	4.8324	$14,240
SD	163	Hernia Proceduress Age 0-17	0.5406	$1,593	3	1.6218	$4,779
SD	198	Total Cholecystectomy w/o CDE w/o CC	1.2891	$3,799	1	1.2891	$3,799
SD	229	Hand or Wroist Proc., except Major Joint Proc. w/o CC	0.7828	$2,307	2	1.5656	$4,613
SD	257	Total Mastectomy for Malignancy w/ CC	1.2233	$3,605	1	1.2233	$3,605
SD	258	Total mastectomy for malignancy w/o CC	0.9917	$2,922	1	0.9917	$2,922
SD	259	Subtotal mastectomy for malignancy w/ CC	0.9040	$2,664	1	0.9040	$2,664
SD	260	Subtotal Mastectomy for Malignancy w/o CC	0.7646	$2,253	4	3.0584	$9,012
SD	262	Breast biopsy & local excision for non-malignancy	0.7115	$2,097	25	17.7875	$52,416
SD	276	Nonmalignant Breast Disord.	0.5028	$1,482	1	0.5028	$1,482
SD	284	Minor skin disord. w/o CC	0.4042	$1,191	3	1.2126	$3,573
SD	340	Testes Proc. non-malignancy age 0-17	0.5786	$1,705	1	0.5786	$1,705
SD	343	Circumcision age 0-17	0.1479	$436	1	0.1479	$436
SD	362	Endoscopic tubal interruption	0.2902	$855	5	1.4510	$4,276
SD	453	Complications of Tx. w/o CC	0.4229	$1,246	1	0.4229	$1,246
SD	493	Laproscopic Cholecystectomy w/ CDE w/ C.C	1.6124	$4,751	1	1.6124	$4,751
SD	494	Laproscopic Cholecystectomy w/o CDE or C.C	1.1054	$3,257	12	13.2648	$39,088
		General Surgery Partnership Subtotal:			85	67.6039	$199,213

Service: **Oral Surgery**
Code: **ABFA**
Service Hospital Cost: $3,923
Base Cost Per RWP: $1,212

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	187	Dental Extractions & Restorations	0.6473	$785	5	3.2365	$3,923
		Oral Surgery Subtotal:			5	3.2365	$3,923

Service: **ENT Partnership**
Code: **ABGP**
Service Hospital Cost: $69,197
Base Cost Per RWP: $2,453

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	059	Tonsillectomy &/or adenoidectomy only Age > 17	0.7408	$1,817	2	1.4816	$3,634
SD	060	Tonsillectomy &/or adenoidectomy only Age 0-17	0.4645	$1,139	7	3.2515	$7,975
SD	062	Myringotomy w/ tube insertion age 0-17	0.8189	$2,009	26	21.2914	$52,225
SD	074	Other ear, nose, mouth, & throat, Dx Age 0-17	0.5103	$1,252	2	1.0206	$2,503
SD	186	Dental & oral disease except extractions & restorations	0.4516	$1,108	1	0.4516	$1,108
SD	467	Other factors influencing health status	0.7140	$1,751	1	0.7140	$1,751
		ENT Partnership Subtotal:			39	28.2107	$69,197

Service: **Urology Partnership**
Code: **ABKP**
Service Hospital Cost: $17,029
Base Cost Per RWP: $2,332

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	270	Other skin, subcut. tissue & breast OR proc. w/o CC	0.7568	$1,765	1	0.7568	$1,765
SD	340	Testes proc., non-malignancy age 0-17	0.5786	$1,349	2	1.1572	$2,699
SD	341	Penis procedures	1.3397	$3,124	2	2.6794	$6,249
SD	343	Circumcision age 0-17	0.1479	$345	9	1.3311	$3,104
SD	477	Non-extensive OR proc. unrelated to principle Dx.	1.3771	$3,212	1	1.3771	$3,212
		Urology Partnership Subtotal:			15	7.3016	$17,029

Service: **Gynecology Partnership**
Code: **ACAP**
Service Hospital Cost: $202,331
Base Cost Per RWP: $8,290

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
	360	Vagina, cervics, & vulva procedures	0.9621	$7,976	2	1.9242	$15,952
	362	Endoscopic tubal interruption	0.2902	$2,406	24	6.9648	$57,740
	364	D&C conitization except for malignancy	0.6706	$5,559	10	6.7060	$55,595
	365	Other female reproductive system OR procedures	1.2739	$10,561	1	1.2739	$10,561
	378	Ectopic Pregnancy	0.8813	$7,306	1	0.8813	$7,306
	381	Abortion w/ D&C aspiration, cutterage, or hysterectom	0.5085	$4,216	9	4.5765	$37,941
	440	Wound debridements for injuries	2.0790	$17,236	1	2.0790	$17,236
		Gynecology Partnership Subtotal:			48	24.4057	$202,331

Service: **Orthopedics**
Code: **AEAA**
Service Hospital Cost: $529,593
Base Cost Per RWP: $2,569

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	006	Carpal tunnel release	0.8124	$2,087	2	1.6248	$4,174
SD	008	Peripheral & Cranial & other nerve system proc. w/o C	1.0963	$2,817	3	3.2889	$8,450
SD	222	Knee proc. w/o CC	1.1148	$2,864	60	66.8880	$171,845
SD-ER	224	Shoulder, elbow or forearm proc. except major joint prc	0.8402	$2,159	8	6.7216	$17,269
SD	225	Foot Procedure	0.9223	$2,370	15	13.8345	$35,543
SD	227	Soft Tissue proc. w/o CC	0.8634	$2,218	5	4.3170	$11,091
SD	229	Hand or wrist proc. except major joint proc. w/o CC	0.7828	$2,011	23	18.0044	$46,256
SD	231	Local excision & removal of internal fixed devices exc.	1.1349	$2,916	53	60.1497	$154,533
SD	232	Arthroscopy	0.9105	$2,339	5	4.5525	$11,696
SD	234	Other musculoskel. system & conn. tissue	1.3744	$3,531	6	8.2464	$21,186
SD	247	Signs & symptoms of musculoskel. system & conn tiss	0.6545	$1,682	3	1.9635	$5,045
OBS	248	Tendonitis, myositis, & bursitis	0.6601	$1,696	3	1.9803	$5,088
SD/OBS-	252	Fx, sprain, strain, & disloc. of forearm, hand, foot age (	0.3952	$1,015	1	0.3952	$1,015
SD	270	Other skin, subcut. tissue & breast OR proc. w/o CC	0.7568	$1,944	8	6.0544	$15,555
OBS-ER	281	Trauma to skin, subcut tissue & breast Age > 17 w/o C	0.6147	$1,579	2	1.2294	$3,159
SB/OBS	477	Non-extensive OR proc. unrelated to principle Dx	1.3771	$3,538	5	6.8855	$17,690
		Orthopedics Subtotal:			202	206.1361	$529,593

Service: **AEAP**
Code: **Orthopedics Partnership**
Service Hospital Cost: $238,041
Base Cost Per RWP: $1,741

Type	DRG Code	DRG	Mean RWP	Cost/ DRG	QTY	Total RWP	Total Cost
SD	006	Carpal tunnel release	0.8124	$1,414	17	13.8108	$24,038
SD	222	Knee proc. w/o CC	1.1148	$1,940	34	37.9032	$65,972
SD-ER	224	Shoulder, elbow or forearm proc. except major joint prc	0.8402	$1,462	2	1.6804	$2,925
SD	225	Foot Procedure	0.9223	$1,605	17	15.6791	$27,290
SD	227	Soft Tissue proc. w/o CC	0.8634	$1,503	14	12.0876	$21,039
SD	229	Hand or wrist proc. except major joint proc. w/o CC	0.7828	$1,362	22	17.2216	$29,975
OBS	230	Local excision & removal of internal fixed devices of hi	0.8679	$1,511	1	0.8679	$1,511
SD	231	Local excision & removal of internal fixed devices exc.	1.1349	$1,975	19	21.5631	$37,532
SD	232	Arthroscopy	0.9105	$1,585	3	2.7315	$4,754
SD	234	Other musculoskel. system & conn. tissue	1.3744	$2,392	3	4.1232	$7,177
SD/OBS-	252	Fx, sprain, strain, & disloc. of forearm, hand, foot age (	0.3952	$688	13	5.1376	$8,942
SD	270	Other skin, subcut. tissue & breast OR proc. w/o CC	0.7568	$1,317	1	0.7568	$1,317
SD	284	Minor skin disorders w/o CC	0.4042	$704	3	1.2126	$2,111
SD-ER	443	Other OR proc. for injuries w/o CC	0.9935	$1,729	2	1.9870	$3,458
		Orthopedics Partnership Subtotal:			151	136.7624	$238,041

Historical Inpatient Surgical Workload (LOS <= 2 days)

Code	Service	Admissions	RWP	Cost per RWP	Average RWP	Average Cost per RWP
ABAA	General Surgery	378	315.26	$5,245	0.8340	$4,375
ABAP	General Surgery Partner	108	87.87	$3,061	0.8136	$2,491
ABFA	Oral Surgery	5	3.24	$1,212	0.6473	$785
ABGP	ENT Partner	39	28.21	$2,665	0.7234	$1,928
ABKP	Urology Partner	17	8.53	$2,265	0.5020	$1,137
ACAP	Gynecology Partner	109	81.50	$7,232	0.7477	$5,408
AEAA	Orthopedics	263	261.08	$2,956	0.9927	$2,935
AEAP	Orthopedics Partner	186	178.52	$1,796	0.9598	$1,724
	Total Inpatient Surgical Workload:	1105	964.22			

Partner Admits:	459
% of Admits:	42%
Partner RWP:	385
% of RWP:	40%

(Note: total surgical admissions for period = 1115. This accounts for 99% of total admissions.)

Historical Cost of Inpatient Surgical Operations

Historical Ancillary Contribution to Inpatient Surgery

Code	Service	ABAA	ABAP	ABFA	ABGP	ABKP	ACAP	AEAA	AEAP	Total Expense
DAAA	Pharmacy-Admin.	$46,453	$3,097	$75	$0	$113	$4,026	$11,768	$3,716	$69,248
DAAB	Pharmacy-PX	$0	$0	$0	$0	$0	$447	$0	$0	$447
DBAA	Pathology-Clinical	$6,458	$340	$0	$0	$0	$1,020	$680	$340	$8,837
DBBA	Pathology-Anatomic.	$63,047	$0	$0	$0	$0	$0	$0	$0	$63,047
DBCA	Pathology-Blood Bank	$1,444	$0	$0	$0	$0	$4,883	$167	$0	$6,494
DCAA	Radiology-Huachuca	$17,997	$1,970	$0	$0	$1,445	$657	$6,831	$920	$29,820
DDAA	Pulmonary Function	$224	$0	$0	$0	$0	$0	$0	$0	$224
DFAA	Anesthesia	$97,765	$13,786	$0	$6,918	$0	$57,443	$47,017	$24,139	$247,068
DFBA	Surgical Suite	$558,520	$91,915	$0	$33,211	$3,583	$302,066	$288,010	$100,873	$1,378,178
DFCA	Recovery Room	$84,614	$21,377	$0	$6,599	$733	$51,025	$45,068	$17,528	$226,943
DGAA	Same Day Surgery	$64,195	$18,228	$1,672	$6,167	$4,989	$14,856	$59,809	$43,363	$213,279
DHAA	Inhalation Repiratory Therapy	$1,028	$188	$0	$0	$0	$0	$0	$0	$1,217
		$941,744	$150,902	$1,747	$52,895	$10,863	$436,424	$459,350	$190,877	**$2,244,801**

Historical Ward 2 Cost Pool Contribution to Inpatient Surgery

	% of Ward 2 Cost Pool	25.81%	3.75%	0.00%	0.41%	0.05%	5.57%	9.96%	2.60%	
AAXA	Ward 2 Cost Pool	$377,120	$54,793	$0	$5,991	$731	$81,385	$145,530	$37,990	$703,539
	Total Ancillary and Ward Expenses:	$1,318,864	$205,695	$1,747	$58,885	$11,593	$517,809	$604,880	$228,867	**$2,948,340**

Historical Direct and Support Cost Contribution to Inpatient Surgery

	Clinician Salaries	$19,675	$0	$1,180	$0	$0	$0	$16,994	$0	$37,849
	Direct less Clinician Salaries	$2,004	$0	$0	$0	$0	$0	$0	$0	$2,004
	Support	$332,822	$63,312	$2,176	$16,302	$7,735	$71,649	$166,914	$91,815	$752,725
	Total Direct and Support Expenses:	$354,501	$63,312	$3,356	$16,302	$7,735	$71,649	$183,908	$91,815	$792,578
	Grand Total for Inpatient Surgical:	**$1,673,365**	**$269,007**	**$5,103**	**$75,187**	**$19,328**	**$589,458**	**$788,788**	**$320,682**	**$3,740,918**

Historical Ancillary Costs

Code	Service	Direct Personnel	Direct Financial	Support By FTE	Support By S.F.	Support Other	Cost Pools & D- Accounts	Total Expense
DAAA	Pharmacy-Admin.	$68,734	$457,193	$99,056	$87,841	$51,820	$2,332,200	$3,096,844
DAAB	Pharmacy-PX	$111,942	$0	$21,670	$38,464	$4,541	$969,165	$1,145,783
DBAA	Pathology-Clinical	$600,335	$531,047	$159,363	$78,015	$123,252	$207,383	$1,699,395
DBBA	Pathology-Anatomic.	$105,212	$33,275	$16,223	$26,011	$12,835	$9,494	$203,049
DBCA	Pathology-Blood Bank	$42,331	$16,759	$7,903	$0	$10,200	$6,275	$83,468
DCAA	Radiology-Huachuca	$457,937	$448,851	$136,341	$79,118	$182,013	$9,379	$1,313,638
DEAA	Central Sterile Supply	$82,838	$20,214	$27,552	$79,136	$29,088	$0	$238,827
DFAA	Anesthesia	$152,134	$16,699	$23,469	$10,917	$25,221	$18,627	$247,068
DFBA	Surgical Suite	$489,240	$376,287	$134,811	$100,444	$159,497	$117,761	$1,378,040
DFCA	Recovery Room	$140,651	$10,658	$30,791	$23,527	$18,546	$4,946	$229,120
DGAA	Same Day Surgery	$162,293	$10,328	$28,718	$35,037	$15,171	$22,556	$274,102
DGAC	Preadmission Unit	$77,150	$6,615	$18,886	$4,768	$0	$773	$108,192
							Total Expenses (less Ward 2):	$10,017,526
AAXA	Ward 2 Cost Pool	$840,955	$77,531	$240,807	$138,620	$113,251	$49,976	$1,461,140
							Total Expenses (including Ward 2):	$11,478,666

Projected Surgical Workload - Same Day and Overnight (23 hours, 59 min.)

Code	Service	Cases	% of Previous Admissions	RWP	% of Previous RWP*
ABAA	General Surgery	316	83.60%	261.16	82.84%
ABAP	General Surgery Partner	98	90.74%	79.14	90.06%
ABFA	Oral Surgery	5	100.00%	3.24	100.00%
ABGP	ENT Partner	39	100.00%	28.21	100.00%
ABKP	Urology Partner	15	88.24%	7.30	85.56%
ACAP	Gynecology Partner	103	94.50%	78.09	95.81%
AEAA	Orthopedics	225	85.55%	225.61	86.41%
AEAP	Orthopedics Partner	176	94.62%	163.31	91.48%
	Total Inpatient Surgical Workload:	977	88.42%	846.05	87.74%

Partner Admits:	431
% of Admits:	44%
Partner RWP:	356
% of RWP:	42%

* Used as factor for reducing ancillary costs for each individual service. This assumes the ancillary service will make necessary reductions in their direct and support costs. RWP was used because it is designed to account for resource intensity of services (i.e. a lower RWP should require less resource)

Historical Ward 2 Cost		Direct		Support			Cost Pools &	Total
Code	Service	Personnel	Financial	By FTE	By S.F.	Other	D- Accounts	Expense
AAXA	Ward 2 Cost Pool	$840,955	$77,531	$240,807	$138,620	$113,251	$49,976	$1,461,140

Projected Cost of Same Day Plus Overnight Surgical Operations

Projected Ancillary Contribution to Same Day Plus Overnight Surgical Operations										Total
Code	Service	ABAA	ABAP	ABFA	ABGP	ABKP	ACAP	AEAA	AEAP	Expense
DAAA	Pharmacy-Admin.	$38,482	$2,789	$75	$0	$97	$3,857	$10,169	$3,399	$58,868
DAAB	Pharmacy-PX	$0	$0	$0	$0	$0	$429	$0	$0	$429
DBAA	Pathology-Clinical	$5,350	$306	$0	$0	$0	$977	$587	$311	$7,531
DBBA	Pathology-Anatomic.	$52,228	$0	$0	$0	$0	$0	$0	$0	$52,228
DBCA	Pathology-Blood Bank	$1,196	$0	$0	$0	$0	$4,678	$144	$0	$6,019
DCAA	Radiology-Huachuca	$14,909	$1,775	$0	$0	$1,236	$629	$5,903	$841	$25,293
DDAA	Pulmonary Function	$186	$0	$0	$0	$0	$0	$0	$0	$186
DFAA	Anesthesia	$80,989	$12,416	$0	$6,918	$0	$55,036	$40,628	$22,081	$218,068
DFBA	Surgical Suite	$462,679	$82,778	$0	$33,211	$3,066	$289,409	$248,876	$92,273	$1,212,292
DFCA	Recovery Room	$70,095	$19,252	$0	$6,599	$627	$48,887	$38,944	$16,033	$200,437
DGAA	Same Day Surgery	$53,179	$16,416	$1,672	$6,167	$4,268	$14,234	$51,682	$39,666	$187,285
DHAA	Inhalation Repiratory Therapy	$852	$170	$0	$0	$0	$0	$0	$0	$1,022
	Total Ancillary Expenses:	***$780,143***	***$135,901***	***$1,747***	***$52,895***	***$9,294***	***$418,136***	***$396,934***	***$174,605***	***$1,969,655***
Projected Ward 2 Cost Pool Contribution to Same Day Plus Overnight Surgical Operations							(Ward Costs at historical levels pending staffing determination for overnight unit)			
	% of Ward 2 Cost Pool	25.81%	3.75%	0.00%	0.41%	0.05%	5.57%	9.96%	2.60%	
AAXA	Ward 2 Cost Pool	$377,120	$54,793	$0	$5,991	$731	$81,385	$145,530	$37,990	$703,539
	Total Ancillary and Ward Expenses:	***$1,157,263***	***$190,694***	***$1,747***	***$58,885***	***$10,025***	***$499,522***	***$542,464***	***$212,595***	***$2,673,194***
Projected Direct and Support Cost Contribution to Same Day Plus Overnight Surgical Operations										
	Clinician Salaries	$19,675	$0	$1,180	$0	$0	$0	$16,994	$0	$37,849
	Direct less Clinician Salaries	$2,004	$0	$0	$0	$0	$0	$0	$0	$2,004
	Support	$332,822	$63,312	$2,176	$16,302	$7,735	$71,649	$166,914	$91,815	$752,725
	Total Direct and Support Expenses:	***$354,501***	***$63,312***	***$3,356***	***$16,302***	***$7,735***	***$71,649***	***$183,908***	***$91,815***	***$792,578***
	Projected Total for SD and OBS:	**$1,511,764**	**$254,006**	**$5,103**	**$75,187**	**$17,760**	**$571,171**	**$726,372**	**$304,410**	**$3,465,772**
	Savings From Historical Costs:	($161,600)	($15,001)	$0	($0)	($1,569)	($18,288)	($62,416)	($16,272)	($275,145)

Projected Surgical Workload - Same Day Only

Code	Service	Cases	% of Previous Admissions	RWP	% of Previous RWP
ABAA	General Surgery	260	68.78%	213.71	67.79%
ABAP	General Surgery Partner	85	78.70%	79.14	90.06%
ABFA	Oral Surgery	5	100.00%	3.24	100.00%
ABGP	ENT Partner	39	100.00%	28.21	100.00%
ABKP	Urology Partner	15	88.24%	7.30	85.56%
ACAP	Gynecology Partner	48	44.04%	24.41	29.94%
AEAA	Orthopedics	202	76.81%	206.14	78.95%
AEAP	Orthopedics Partner	151	81.18%	136.76	76.61%
	Total Inpatient Surgical Workload:	805	72.85%	698.90	72.48%

Partner Admits:	338
% of Admits:	42%
Partner RWP:	276
% of RWP:	39%

* Used as factor for reducing ancillary costs for each individual service. This assumes the ancillary service will make necessary reductions in their direct and support costs. RWP was used because it is designed to account for resource intensity of services (i.e. a lower RWP should require less resource)

Historical Ward 2 Cost		Direct		Support			Cost Pools &	Total
Code	Service	Personnel	Financial	By FTE	By S.F.	Other	D- Accounts	Expense
AAXA	Ward 2 Cost Pool	$840,955	$77,531	$240,807	$138,620	$113,251	$49,976	$1,461,140

Projected Cost of Same Day Only Surgical Operations

Projected Ancillary Contribution to Same Day Only Surgical Operations										Total
Code	Service	ABAA	ABAP	ABFA	ABGP	ABKP	ACAP	AEAA	AEAP	Expense
DAAA	Pharmacy-Admin.	$31,489	$2,789	$75	$0	$97	$1,206	$9,291	$2,847	$47,794
DAAB	Pharmacy-PX	$0	$0	$0	$0	$0	$134	$0	$0	$134
DBAA	Pathology-Clinical	$4,378	$306	$0	$0	$0	$305	$537	$260	$5,786
DBBA	Pathology-Anatomic.	$42,738	$0	$0	$0	$0	$0	$0	$0	$42,738
DBCA	Pathology-Blood Bank	$979	$0	$0	$0	$0	$1,462	$132	$0	$2,573
DCAA	Radiology-Huachuca	$12,200	$1,775	$0	$0	$1,236	$197	$5,393	$704	$21,505
DDAA	Pulmonary Function	$152	$0	$0	$0	$0	$0	$0	$0	$152
DFAA	Anesthesia	$66,273	$12,416	$0	$6,918	$0	$17,201	$37,122	$18,492	$158,421
DFBA	Surgical Suite	$378,609	$82,778	$0	$33,211	$3,066	$90,451	$227,398	$77,276	$892,787
DFCA	Recovery Room	$57,358	$19,252	$0	$6,599	$627	$15,279	$35,583	$13,427	$148,126
DGAA	Same Day Surgery	$43,516	$16,416	$1,672	$6,167	$4,268	$4,449	$47,222	$33,219	$156,929
DHAA	Inhalation Repiratory Therapy	$697	$170	$0	$0	$0	$0	$0	$0	$867
	Total Ancillary Expenses:	***$638,388***	***$135,901***	***$1,747***	***$52,895***	***$9,294***	***$130,682***	***$362,679***	***$146,226***	***$1,477,812***
Projected Ward 2 Cost Pool Contribution to Same Day Only Surgical Operations										
	% of Ward 2 Cost Pool	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
AAXA	Ward 2 Cost Pool	$0	$0	$0	$0	$0	$0	$0	$0	$0
	Total Ancillary and Ward Expenses:	***$638,388***	***$135,901***	***$1,747***	***$52,895***	***$9,294***	***$130,682***	***$362,679***	***$146,226***	***$1,477,812***
Projected Direct and Support Cost Contribution to Same Day Only Surgical Operations										
	Clinician Salaries	$19,675	$0	$1,180	$0	$0	$0	$16,994	$0	$37,849
	Direct less Clinician Salaries	$2,004	$0	$0	$0	$0	$0	$0	$0	$2,004
	Support	$332,822	$63,312	$2,176	$16,302	$7,735	$71,649	$166,914	$91,815	$752,725
	Total Direct and Support Expenses:	***$354,501***	***$63,312***	***$3,356***	***$16,302***	***$7,735***	***$71,649***	***$183,908***	***$91,815***	***$792,578***
	Projected Total for SD and OBS:	**$992,889**	**$199,213**	**$5,103**	**$69,197**	**$17,029**	**$202,331**	**$546,587**	**$238,041**	**$2,270,390**
	Savings From Historical Costs:	**($680,476)**	**($69,794)**	**$0**	**($5,991)**	**($2,299)**	**($387,127)**	**($242,201)**	**($82,641)**	**($1,470,528)**

Active Duty Surgical Admissions

Ambulatory Surgical Operations - Same Day and Overnight

Cases By Service and DRG

Service: **General Surgery**
Code: **ABA**

DRG Code	DRG	Active Duty QTY
151	Pentoneal Adhesiolysis w/o CC	1
158	Anal and Stomal Proc w/o CC	10
160	Hernia Proc. except Inguinal & Femoral Age> 17 w/o CC	6
161	Inguinal & Femoral Hernia Age >17 w/ CC	1
162	Inguinal & Femoral Hernia Age >17 w/o CC	20
167	Appendectomy w/o Complicated Princ. Dx w/o CC	5
217	Wnd Debrid. & Skin Graft Exc Hand, for Musculoskel. & Conı	1
261	Breast Proc. for Nonmalignancy except biopsy and local excis	1
262	Breast biopsy & local excision for non-malignancy	4
266	Skin graft and/or debrid. except for skinn ulcer or cellulitis w/	2
267	Perianal & Pilonidal Proc.	5
270	Other skin, subcut. tissue, & breast OR Proc w/o CC	8
290	Thyroid Proc.	1
339	Testes Proc. non-malignancy age > 17	2
341	Penis Proc.	1
342	Circumcision age > 17	7
351	Sterilization, Male	2
356	Female reproductive system reconstruction procedures	1
362	Endoscopic tubal interruption	12
443	Other OR proc. for injuries w/o CC	1
494	Laproscopic Cholecystectomy w/o CDE or C.C	3
		94

Service: **Oral Surgery**
Code: **ABF**

DRG Code	DRG	QTY
187	Dental Extractions & Restorations	1
		1

Service: **Gynecology**
Code: **ACA**

DRG Code	DRG	QTY
359	Uterus & Adenexa Proc. for non-malignancy w/o CC	1
364	D&C conitization except for malignancy	2
381	Abortion w/ D&C aspiration, cutterage, or hysterectomy	4
		6

Service: **Orthopedics**
Code: **AEA**

DRG Code	DRG	QTY
219	Lower extrem. & humer. except hip, foot, femur Age >17 w/o	3
222	Knee proc. w/o CC	51
223	Major shoulder/elbow proc. or other upper extremity proc. w/	10
224	Shoulder, elbow or forearm proc. except major joint proc. w/o	5
225	Foot Procedure	12
227	Soft Tissue proc. w/o CC	4
229	Hand or wrist proc. except major joint proc. w/o CC	21
230	Local excision & removal of internal fixed devices of hip/femu	1
231	Local excision & removal of internal fixed devices exc. hip/fer	49
232	Arthroscopy	4
234	Other musculoskel. system & conn. tissue	6
477	Non-extensive OR proc. unrelated to principle Dx	4
		167

Ambulatory Surgical Operations - Same Day Only

Cases By Service and DRG

Service: **General Surgery**
Code: **ABA**

DRG Code	DRG	Active Duty QTY
158	Anal and Stomal Proc w/o CC	10
160	Hernia Proc. except Inguinal & Femoral Age> 17 w/o CC	6
161	Inguinal & Femoral Hernia Age >17 w/ CC	1
162	Inguinal & Femoral Hernia Age >17 w/o CC	20
217	Wnd Debrid. & Skin Graft Exc Hand, for Musculoskel. & Conn. T	1
261	Breast Proc. for Nonmalignancy except biopsy and local excision	1
262	Breast biopsy & local excision for non-malignancy	4
266	Skin graft and/or debrid. except for skinn ulcer or cellulitis w/	2
267	Perianal & Pilonidal Proc.	5
270	Other skin, subcut. tissue, & breast OR Proc w/o CC	8
290	Thyroid Proc.	1
339	Testes Proc. non-malignancy age > 17	2
341	Penis Proc.	1
342	Circumcision age > 17	7
351	Sterilization, Male	2
356	Female reproductive system reconstruction procedures	1
362	Endoscopic tubal interruption	12
443	Other OR proc. for injuries w/o CC	1
494	Laproscopic Cholecystectomy w/o CDE or C.C	3
		88

Service: **Oral Surgery**
Code: **ABF**

DRG Code	DRG	QTY
187	Dental Extractions & Restorations	1
		1

Service: **Gynecology**
Code: **ACA**

DRG Code	DRG	QTY
364	D&C conitization except for malignancy	2
381	Abortion w/ D&C aspiration, cutterage, or hysterectomy	4
		6

Service: **Orthopedics**
Code: **AEA**

DRG Code	DRG	QTY
219	Lower extrem. & humer. except hip, foot, femur Age >17 w/o CC	3
222	Knee proc. w/o CC	51
224	Shoulder, elbow or forearm proc. except major joint proc. w/o CC	5
225	Foot Procedure	12
227	Soft Tissue proc. w/o CC	4
229	Hand or wrist proc. except major joint proc. w/o CC	21
230	Local excision & removal of internal fixed devices of hip/femur	1
231	Local excision & removal of internal fixed devices exc. hip/femur	49
232	Arthroscopy	4
234	Other musculoskel. system & conn. tissue	6
477	Non-extensive OR proc. unrelated to principle Dx	4
		157